

HIGHWAY-RAIL CROSSING ACCIDENT/INCIDENT AND INVENTORY BULLETIN

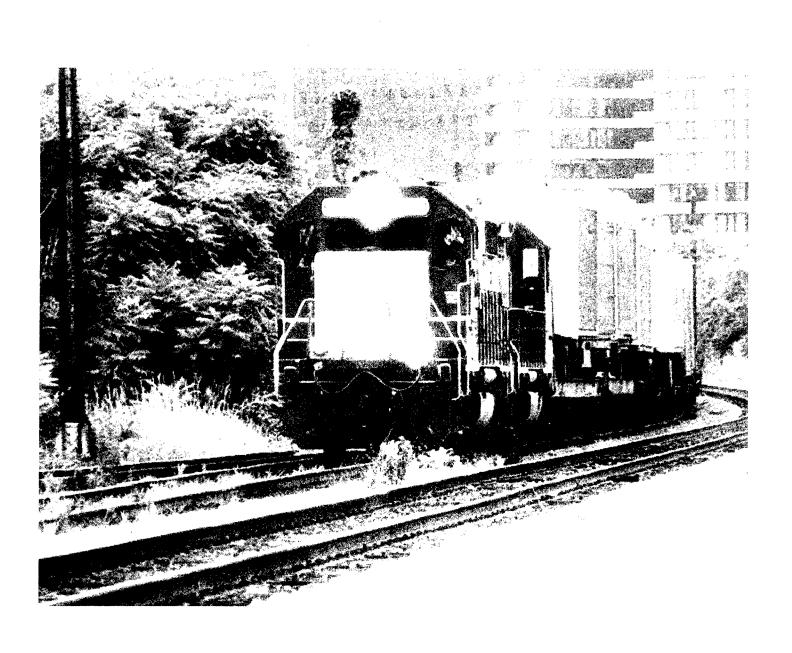
Federal Railroad Administration

Office of Safety

No. 17

CALENDAR YEAR 1994

JULY 1995



NOTICE

his document is disseminated under the sponsorship of the Department of ransportation in the interest of the information exchange. The United States overnment assumes no liability for its contents or use.

Federal Railroad Administration Office of Safety, RRS-22 400 Seventh Street, S.W. Washington, D.C. 20590

TABLE OF CONTENTS

SECTION		<u>PAGE</u>
INTRODUCTION .		. 1
RESOURCE ALLOCATI	ON PROCEDURE CONSTANTS	. 2
TABLE-S.	Summary of Highway-Rail Crossing Accident Statistics for the Nation	. 3
HISTORICAL ACCIDE	ENT TRENDS - GRAPHS	. 5
FIGURE 1.	Summary of Accidents/Incidents and Casualties at Public Highway-Rail Crossings	. 6
FIGURE 2.	Summary of Motor Vehicle Accidents/ Incidents and Rates at Public Highway-Rail Crossings	. 6
FIGURE 2A.	Summary of Motor Vehicle Accidents/ Incidents at Public Highway-Rail Crossings and Number of Crossings	. 7
HISTORICAL ACCIDE		. 9
TABLE 1.	Summary of Accidents/Incidents and Casualties at Highway-Rail Crossings	. 10
TABLE 2.	Summary of Accidents/Incidents and Accident Rates at Highway-Rail Crossings Involving Motor Vehicles	. 10
CURRENT YEAR ACCI CROSSINGS ONLY		. 11
FIGURE 3A.	Accidents by Highway User	. 12
FIGURE 3B.	Casualties by Highway User	. 12
FIGURE 4A.	Motor Vehicle Accidents/Incidents .	. 13
FIGURE 4B.	PIE CHART - Injuries vs. Fatalities	. 13

SECTION			PAGE
	FIGURE 5A.	Motor Vehicle Accidents/Incidents by Train Speed	. 14
	FIGURE 5B.	Casualties by Rail Consist Speed	. 14
	FIGURE 6A.	Accidents by Warning Device Category	. 15
	FIGURE 6B.	Accidents by Warning Device Category - Casualties	. 15
	FIGURE 7A.	Accidents/Incidents by Number of Trains Per Day and Annual Average Daily Traffic	. 16
	FIGURE 7B.	Accidents/Incidents by Number of Trains Per Day and Warning Device Category	. 16
	FIGURE 8.	Crossing Accident Rate by Location	. 17
	FIGURE 9.	Crossing Accident Rate by Type Development	. 17
	FIGURE 10.	Crossing Accident Rate by Number of Tracks	. 18
	FIGURE 11.	Crossing Accident Rate by Number of Mainline Tracks	. 18
	FIGURE 12.	Crossing Accident Rate by Highway System	. 19
	FIGURE 13.	Crossing Accident Rate by Type of Urban Road	. 19
	FIGURE 14.	Crossing Accident Rate by Type of Rural Road	. 20
	FIGURE 15.	Crossing Accident Rate by Paved or Non-Paved Road Surface .	. 20
	FIGURE 16.	Crossing Accident Rate by Number of Traffic Lanes	. 21
	FIGURE 17.	Crossing Accident Rate by Smallest Crossing Angle	. 21

<u>SECTION</u>		PAGE
FIGURE 18.	Crossing Accident Rate by Crossing Surface	22
FIGURE 19.	Crossing Accident Rate by Number of Trains Per Day	22
FIGURE 20.	Crossing Accident Rate by Number of Thru-Trains During Daylight Hours (6 a.m. to 6 p.m.)	23
FIGURE 21.	Crossing Accident Rate by Maximum Timetable Speed	23
FIGURE 22.	Crossing Accident Rate by Annual Average Daily Traffic	24
FIGURE 23.	Crossing Accident Rate by Number of Trains and Annual Average Daily Traffic	24
FIGURE 24.	Crossing Accident Rate by Warning Device Category	25
CURRENT YEAR ACCI CROSSINGS ONLY		27
FIGURE 25A.	Motor Vehicle Accidents/Incidents at Highway-Rail Crossings	28
FIGURE 25B.	Motor Vehicle Accidents/Incidents Killed at Highway-Rail Crossings .	29
FIGURE 25C.	Motor Vehicle Accidents/Incidents at Crossings Injuries	30
CURRENT YEAR ACCI AT PUBLIC CROSS	DENT DATA INGS ONLY - DATA	31
TABLE 3.	Accidents/Incidents at Highway-Rail Crossings by State	32
TABLE 4.	MV Accidents/Incidents at Highway-Rail Crossings by State	33
TABLE 5.	Accidents/Incidents at Highway-Rail by Type of Motor Vehicle	34
TABLE 6.	MV Accidents/Incidents at Highway-Rail Crossings by Type of Consist	35

SECTION			<u> 1</u>	PAGE
	TABLE	7.	MV Accidents/Incidents at Highway-Rail Crossings by Warning Device by Railroad	36
	TABLE	7A.	Accidents/Incidents at Highway-Rail by Railroad	37
	TABLE	8.	MV Accidents/Incidents at Highway-Rail Crossings by Warning Device by State	38
	TABLE	9.	Accidents/Incidents at Highway-Rail Crossings by Highway User	39
	TABLE	10.	MV Accidents/Incidents at Highway-Rail Crossings by Circumstance	39
	TABLE	11.	Accidents/Incidents at Highway-Rail Crossings by Type of Vehicle and Number of Occupants	39
	TABLE	12.	MV Accidents/Incidents at Highway-Rail Crossings by Type of Vehicle, Circumstance and Visibility	40
	TABLE	13.	Casualties at Highway Crossings by Type of Person Involved, Highway User, and Circumstance	41
	TABLE	14.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Speed of Vehicle, Circumstance, and Visibility	42
	TABLE	15.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Position and Type of Vehicle	42
	TABLE	16.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Speed of Train, Circumstance, and Visibility	43
·	TABLE	17.	MV Accidents/Incidents at Highway-Rail Crossings by Railroad Equipment Involved, Part of Train Struck, Circumstance and Visibility	44

<u>SECTION</u>		<u>:</u>	PAGE
	TABLE 18.	MV Accidents/Incidents at Highway-Rail Crossings by Train Speed and Type of Train	44
	TABLE 19.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Number of Cars in Train and Type of Train	44
	TABLE 20.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Length of Consists and Visibility	45
	TABLE 21.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Type and Class of Track	46
	TABLE 22.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Warning Device and Motorist Action	46
	TABLE 23.	MV Accidents/Incidents at Highway-Rail Crossings by Operational Status of Warning Device, Circumstance, and Visibility	47
	TABLE 24.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings During Dusk and Dark Hours by Illumination of Crossing and Circumstance	47
	TABLE 25.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Location and Type of Warning Device, Circumstance and Visibility	48
	TABLE 26.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Visibility and Circumstance	49
	TABLE 27.	MV Accidents/Incidents at Highway-Rail Crossings by Visibility and Circumstance	. 49

SECTION	<u> 1</u>	PAGE
TABLE 28.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Time of Day and Circumstance	50
TABLE 29.	MV Accidents/Incidents and Casualties at Highway-Rail Crossings by Month and Circumstance	50
TABLE 30.	MV Accidents/Incidents at Highway-Rail Crossings by Weather Conditions, Circumstance and Visibility	51
TABLE 31.	MV Accidents/Incidents at Highway-Rail Crossings by Obstruction of Motorist View, Circumstance and Visibility .	51
TABLE 32.	MV Accidents/Incidents at Highway-Rail Crossings by Motorist Action and Type of Vehicle	51
HIGHWAY-RAIL CRO INVENTORY - GR		53
FIGURE 26.	Crossings by Type of Development	54
FIGURE 27.	Crossings by Number of Tracks	54
FIGURE 28.	Crossings by Number of Lanes	55
FIGURE 29.	Crossings by Warning Device Category	. 55
FIGURE 30.	Crossings by Smallest Crossing Angle .	. 56
FIGURE 31.	Crossings by Crossing Surface	. 56
FIGURE 32.	Crossings by Number of Trains Per Day and Warning Device Category	. 57
FIGURE 34.	Crossings by Number of Trains Per Day and Type of Warning Device	. 57
FIGURE 35.	Crossings by Annual Average Daily Traffic	. 58
HIGHWAY-RAIL CRO	SSING INVENTORY	. 59
FIGURE 37A.	Number of Public Crossings by State	. 60

SECTION				<u>P</u> 2	\GE
	FIGURE	E 37B.	Number of Private Crossings by State	•	61
HIGHV DAT		L CROSS	ING INVENTORY		63
	TABLE	33.	Total Public and Private Crossings by State and Type	•	64
	TABLE	34.	Total Public and Private Crossings by Railroad and Type		65
	TABLE	35.	Total Crossings by State and Location: Urban or Rural		67
	TABLE	36.	Total Crossings by Number of Main and Other Tracks		68
	TABLE	37.	Total Crossings by Number of Tracks and Warning Device Category	•	68
	TABLE	38.	Total Crossings by Number of Tracks and Traffic Lanes	•	68
	TABLE	39.	Total Crossings by Number of Tracks and State	•	69
	TABLE	40.	Total Crossings by Type of Highway System and State	•	70
	TABLE	41.	Total Crossings by Highway System Group and State	•	71
	TABLE	42.	Total Crossings by Functional Classification of Road at Highway-Rail Crossings	•	72
	TABLE	43.	Total Crossings by Number of Traffic Lanes and State		72
	TABLE	44.	Total Crossings by Number of Traffic Lanes and Warning Device Category		73
	TABLE	45.	Total Crossings by Warning Device Category and State		73
	TABLE	46.	Total Crossings by Warning Device Category and Railroad		74

SECTION			PAGE
	TABLE 47.	Total Crossings by Pavement Markings and State	. 76
	TABLE 48.	Total Crossings by Railroad Advance Warning and State	. 77
	TABLE 49.	Total Crossings Meeting the Manual o Uniform Traffic Control Devices' Standard for Crossbucks by State .	
	TABLE 50.	Total Crossings by Total Number of Trains Per Day	. 79
	TABLE 51.	Total Crossings by Number of Thru Trains and Switching Trains Per Day	. 79
	TABLE 52.	Total Crossings by Number of Day and Night Trains Per Day	
	TABLE 53.	Total Crossings by Number of Trains Per day and Warning Device Category	. 80
	TABLE 54.	Total Crossings by Number of Trains Per Day and Annual Average Daily Traffic	. 80
	TABLE 55.	Total Crossings by Maximum Timetable Speed	. 80
	TABLE 56.	Total Crossings by Typical Train Speed Variation	. 81
	TABLE 57.	Total Crossings by Annual Average Daily Traffic	. 81
	TABLE 58.	Total Crossings by Annual Average Daily Traffic and Warning Device Category	. 81
	TABLE 59.	Total Crossings by Truck Traffic As a Percentage of Annual Average Daily Traffic	. 82
	TABLE 60.	Total Crossings by Crossing Surface	. 83

SECTION			<u>PAGE</u>
TABLE	61.	Total Crossings by Maximum Timetable Speed, Warning Device Category and Number of Tracks	84
SUMMARY OF AND INVEN		T/INCIDENT TA FOR PRIVATE CROSSINGS	85
TABLE	62.	MV Accidents/Incidents at Private Highway-Rail Crossings by Type of Consist	86
TABLE	63.	MV Accidents/Incidents at Private Highway-Rail Crossings by State and Warning Device	87
TABLE	64.	Accidents/Incidents at Private Highwa Rail Crossings by Highway User	
TABLE	65.	MV Accidents/Incidents at Private Highway-Rail Crossings by Warning Device Category and Motorist Action	88
TABLE	66.	MV Accidents/Incidents at Private Highway-Rail Crossings by Speed of Train, Circumstance and Visibility	89
TABLE	67.	MV Accidents/Incidents at Private Highway-Rail Crossings by Railroad and Warning Device Category	90
TABLE	68.	Accidents/Incidents and Casualties at Private Highway-Rail Crossings by by Railroad	91
TABLE	69.	MV Accidents/Incidents and Casualties at Private Highway-Rail Crossings by Speed of Consist	92
TABLE	70.	MV Accidents/Incidents and Casualties at Private Highway-Rail Crossings by Length of Consist	92

SECTION		<u> </u>	AGE
TABLE	71.	MV Accidents/Incidents at Private Highway-Rail Crossings by Operational Status of Warning Device Circumstance and Visibility	
TABLE	72.	Private Crossings At-Grade by State and Type Development	94
TABLE	73.	Private Crossings At-Grade by State and Type Warning Device	95
TABLE	74.	Private Crossings At-Grade by Type Development and Warning Device	95
TABLE	75.	Private Crossings At-Grade by Railroad and Type Development	
TABLE	76.	Private Crossings At-Grade by Railroad and Type Warning Device	
APPENDIX A AND DEFI		ring requirements	1
APPENDIX B	- REPORT	ring forms	-1

LIST OF ABBREVIATIONS

ACC/INC - Accident/Incident

A/I - Accident/Incident

CONT - Contractor Employee

ENOD - Employee Not On Duty

EOD - Employee On Duty

FA - Federal Aid

HWY - Highway

INJ - Injury or Casualty

K - Thousands

KLD - Killed

LOCO(S) - Locomotive

MUTCD - Manual on Uniform Traffic Control Devices

MV - Motor Vehicle

NONT - Non-Trespasser

PSGR - Passenger

SIG - Signal

TRES - Trespasser

VEH REG - Vehicles Registered

TABLE 4. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY STATE, 1993, CORRECTION

	No. Of		Casualtic	.e	Vehicles	Per 10,00	N Panietr	ation
State	Acc/Inc	Kld	Inj	Total	Registered	Acc/Inc	Kld	Inj.
Alabama	164	23	53	76	3,402,000	.48	.07	.16
Alabama	9			4			.07	
Alaska	•		4		512,000	.18		.08
Arizona	26	2	10	12	2,861,000	.09	.01	.03
Arkansas	136	21	54	75	1,538,000	-88	.14	.35
California	152	29	39	68	23,082,000	.07	.01	.02
Colorado	53	7	21	28	2,983,000	.18	.02	.07
Connecticut	10	1	4	5	2,605,000	.04		.02
Delaware	10		6	6	567,000	.18		.11
Dist. of Columbia					264,000			
Florida	101	16	68	84	10,686,000	.09	.01	.06
Georgia	144	18	61	7 9	6,179,000	.23	.03	.10
Idaho	43	6	13	19	1,065,000	.40	.06	.12
Illinois	257	41	102	143	8,192,000	.31	.05	.12
Indiana	270	33	88	121	4,717,000	.57	.07	.19
Iowa	125	10	44	54	2,898,000	.43	.03	.15
Kansas	97	5	32	37	2,012,000	.48	.02	.16
Kentucky	66	5	36	41	3,059,000	.22	.02	.12
Louisiana	199	19	93	112	3,178,000	.63	.06	.29
Maine	4		1	1	1,005,000	.04		.01
Maryland	12		4	4	3,814,000	.03		.01
Massachusetts	9				3,684,000	.02		
Michigan	151	14	78	92	7,538,000	.20	.02	.10
	116	15	38	53	3,659,000	.32	.04	.10
Minnesota	120	13	62	75	2,025,000	.59	.06	.31
Mississippi			. 36			.24	.03	
Missouri	100 22	12		48	4,125,000	.23	.03	.09
Montana		8	6	14	955,000			.06
Nebraska	74	10	20 	30	1,392,000	.53 	.07	.14
Nevada New Hampshire	3				970,000 914,000	.03		
	,,	2	20	71	E 744 000	00		05
New Jersey	44	2	29	31	5,764,000	.08		.05
New Mexico	22	4	22	26	1,405,000	.16	.03	.16
New York	37	6	15	21	9,966,000	.04	.01	.02
North Carolina	149	12	47	59	5,471,000	.27	.02	.09
North Dakota	36	7	16	23	684,000	.53	.10	.23
Ohio	252	40	92	132	9,413,000	.27	.04	.10
Oklahoma	116	12	61	73	2,844,000	.41	- 04	.21
Oregon	39	6	8	14	2,713,000	.14	.02	.03
Pennsylvania	92	7	3 5	42	8,476,000	.11	.01	.04
Rhode Island					636,000			
South Carolina	74	17	33	50	2,613,000	.28	.07	.13
South Dakota	29		15	15	753,000	.39		.20
Tennessee	96	9	22	31	4,827,000	.20	.02	.05
Texas	452	65	184	249	13,032,000	.35	.05	.14
Utah	25	5	5	10	1,301,000	.19	-04	.04
Vermont	2		4	4	483,000	.04		.08
Virginia	69	4	17	21	5,455,000	.13	.01	.03
Washington	55	4	11	15	4,556,000	.12	.01	.02
West Virginia	28	1	8	9	1,297,000	.22	.01	.06
Wisconsin	147	8	78	86	3,985,000	.37	.02	.20
Wyoming	3		2	2	512,000	.06		.04
Unknown					2.2,000			
Total	4,240	517	1,677	2,194	196,067,000	.22	.03	.09

Note: Vehicle registration figures are for 1993 and were supplied by the Federal Highway Administration.

Registration figures for Hawaii are omitted because it does not have any reporting railroads.

INTRODUCTION

The seventeenth annual report, issued by the Federal Railroad Administration (FRA) Office of Safety, combines highway-rail crossing accident/incident statistics with the National highway-rail crossing inventory. Accident/incident data is compiled from monthly reports filed by railroads. The National highway-rail crossing inventory contains sight-survey data about individual crossings and is provided voluntarily by states and railroads.

The Federal Railroad Safety Act of 1970 (P.L. 91-458) and the Accident Reports Act (45 U.S.C. 38-34) require railroads to file accident/incident reports with the FRA. The National highway-rail crossing inventory was developed in response to the Federal Railroad Safety Act of 1970 and the Federal Highway Safety Acts of 1970 and 1973, which require the Secretary of Transportation to work towards improving safety at highway-rail crossings.

* * * * * *

Tables and figures retain the number identification used in prior years. Information on accidents/incidents and crossings is presented in the following sequence:

Historical data on highway-rail crossing accidents/incidents at public crossings.

Summary of 1994 accidents/incidents that occurred at public crossing sites.

Physical and operational statistics for all public at-grade highway-rail crossings as described in the inventory on June 9, 1995.

Summary of 1994 accidents/incidents occurring at <u>private</u> highway-rail crossings and tabulations of private crossings in the inventory.

The tables and figures in Sections 1, 2, 3, 4, and Appendix C furnish data on public highway-rail crossings; although tables 33 and 34 in Section 4 include counts of the number of private crossings. The majority of the accident tables and charts shown in this bulletin provide information on motor vehicle accidents. Those tables and figures that do not refer to motor vehicle in their title contain data for all accidents/incidents.

1992/3 ACCIDENT PREDICTION AND RESOURCE ALLOCATION PROCEDURE CONSTANTS

The U.S. DOT Highway-Rail Crossing Resource Allocation Procedure, described in the <u>Rail-Highway Crossing Resource Allocation Procedure User's Guide, Third Edition, DOT/FRA/OS-87/10, August 1987, uses three "normalizing constants" in the accident prediction formulas, Formula A, Section 3.2.4, Page 17. These constants have been adjusted periodically in order to keep the formulas matched with current accident trends. The last readjustment was made for Calendar Year 1992 and was published in Bulletin No. 14.</u>

The process of determining the three (3) current normalizing constants for 1992 was performed so that the sum of the December 1991, predictions using only accident history data for Calendar Years 1986 to 1990 for the top 20 percent of each of the three classes of crossings (gates, flashing lights, passive) for the respective three formulas is made equal to the actual number of accidents that occurred for those same crossings in 1991. This process was performed for each of the three warning device groups, (1) passive, (2) flashing lights, and (3) gates.

These constants were redetermined for the "national" model using the crossings in the inventory as of December 31, 1991. Organizations using the "DOT Model" should update their models by replacing the old constants with the recalculated constants. The constants referenced here are located in the computer program ACPD.NEW as shown in the coding at the top of page A-4, Appendix A1 of the User's Guide Third Edition and in RESAL.NEW on page B-3, Appendix B1.

These constants will be used in fulfilling requests for accident prediction and resource allocation procedure listings. The table below lists the current and prior constants.

ACCIDENT PREDICTION AND RESOURCE ALLOCATION PROCEDURE NORMALIZING CONSTANTS

WARNING DEVICE GROUPS	CURRENT 1992	PRIOR YEARS 1990 1988 1986
(1) Passive	.8239	.9417 .8778 .8644
(2) Flashing Lights	.6935	.8345 .8013 .8887
(3) Gates	.6714	.8901 .8911 .8131

The Resource Allocation Procedure is currently being reviewed and, if merited, may be revised. (This project is one of 55 actions identified within the Department of Transportation's recently released Highway-Rail Crossing Safety Action Plan.) As such, recalculation of the "normalizing constants" for the existing accident prediction formulas has been deferred until this review is complete. Users of the "DOT Model" should continue to use the 1992 constants detailed above.

TABLE-S. SUMMARY OF HIGHWAY-RAIL CROSSING ACCIDENT STATISTICS FOR THE NATION

YEAR	ACCI	TOTAL FATAL	INJ	MOTO ACCI	OR VEHIC	LES Inj	NON-MO	TOR VEHI	CLES Inj
1989									
PUBLIC PRIVATE	5,979 546	7 57 44	2,683 185	5,772 524	682 43	2,615 176	207 22	75 1	68 9
TOTAL	6,525	801	2,868	6,296	725	2,791	229	76	77
1990									
PUBLIC PRIVATE	5,233 480	648 50	2,254 153	5,022 458	568 46	2,186 146	211 22	80 4	68 7
TOTAL	5,713	698	2,407	5,480	614	2,332	233	84	75
1991									
PUBLIC PRIVATE	4,861 525	565 43	1,923 171	4,677 495		1,866 163	184 30	68 5	57 8
TOTAL	5,386	608	2,094	5,172	535	2,029	214	73	65
1992									
PUBLIC PRIVATE	4,465 445	536 43	1,830 145	4,269 415	466 40	1,752 139	196 30	70 3	78 6
TOTAL	4,910	579	1,975	4,684	506	1,891	226	73	84
1993									
PUBLIC PRIVATE	4,437 455	584 42	1,744 93	4,240 421	517 37	1,677 83	197 34	67 5	67 10
TOTAL	4,892	626	1,837	4,661	554	1,760	231	72	77
1994									
PUBLIC PRIVATE	4,503 476	572 43	1,829 132	4,296 450	501 41	1,764 121	207 26	71 2	65 11
TOTAL	4,979	615	1,961	4,746	542	1,885	233	73	76

•			

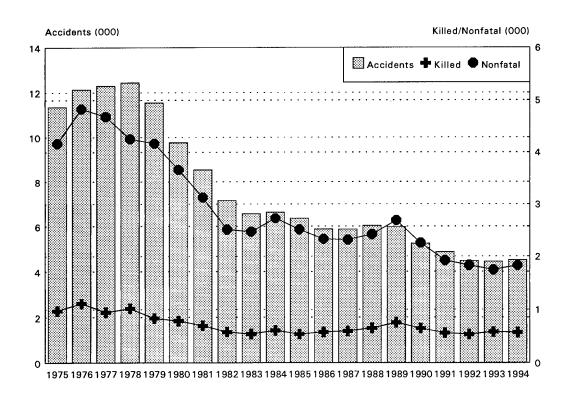
(GRAPHS)

HISTORICAL ACCIDENT TRENDS

FOR

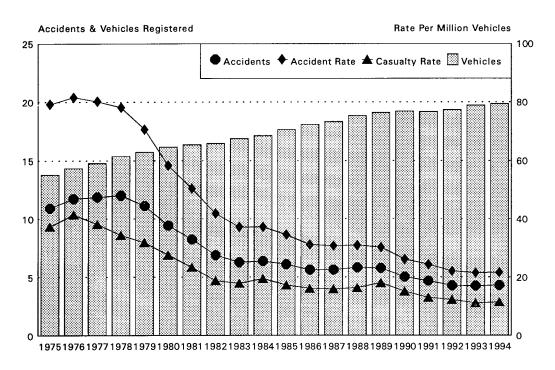
PUBLIC CROSSINGS ONLY

FIGURE 1. SUMMARY OF ACCIDENTS/INCIDENTS AND CASUALTIES AT PUBLIC HIGHWAY-RAIL CROSSINGS



For accidents use scale on left axis, casualties use scale on right axis.

FIGURE 2. SUMMARY OF MOTOR VEHICLE ACCIDENTS/INCIDENTS AND RATES AT PUBLIC HIGHWAY-RAIL CROSSINGS

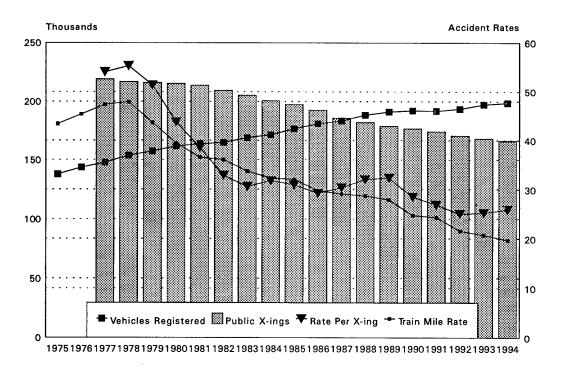


The number of accidents are shown in thousands using left axis.

The number of registered vehicles are shown in ten thousands using left axis.

Accident and casualty rates use right axis.

FIGURE 2A. SUMMARY OF MOTOR VEHICLE ACCIDENTS/INCIDENTS AT PUBLIC HIGHWAY-RAIL CROSSINGS AND NUMBER OF CROSSINGS



PUBLIC AT GRADE CROSSINGS

Accident rates are shown in terms of the frequency per 1,000 public at grade crossings, and the frequency per 3,000,000 train miles operated.

		-	

(D A T A)

HISTORICAL ACCIDENT TRENDS

FOR

PUBLIC CROSSINGS ONLY

TABLE 1. SUMMARY OF ACCIDENTS/INCIDENTS AND CASUALTIES AT HIGHWAY-RAIL PUBLIC CROSSINGS

YEAR	NUMBER OF ACCIDENTS	KILLED	TOTAL. INJURED	CASUALTIES	CASUALTIES PER ACCIDENT
1989	5,979	757	2,683	3,440	0.58
1990	5,233	648	2,254	2,902	0.55
1991	4,861	565	1,923	2,488	0.51
1992	4,465	536	1,830	2,366	0.52
1993	4,437	584	1,744	2,328	0.52
1994	4,503	572	1,829	2,401	0.53

TABLE 2. SUMMARY OF ACCIDENTS/INCIDENTS AND ACCIDENT RATES AT HIGHWAY-RAIL PUBLIC CROSSINGS INVOLVING MOTOR VEHICLES

YEAR	ACCIDENTS	MOTOR VEHICLES REGISTERED (000) ¹	ACCIDENTS PER MILLION VEHICLES	
1989	5,772	190,940	30.23	
1990	5,022	192,123	26.14	
1991	4,677	191,743	24.39	
1992	4,269	193,430	22.07	
1993	4.240	197, 254	21.49	
1994	4,296	198,620²	21.63	

¹Figures supplied by the Federal Highway Administration

²1994 MOTOR VEHICLE NUMBERS ARE PRELIMINARY. Registration figures for Hawaii are omitted because it does not have any reporting railroads.

(GRAPHS)

CURRENT YEAR ACCIDENTS

AT

PUBLIC CROSSINGS ONLY

FIGURE 3A. ACCIDENTS BY HIGHWAY USER

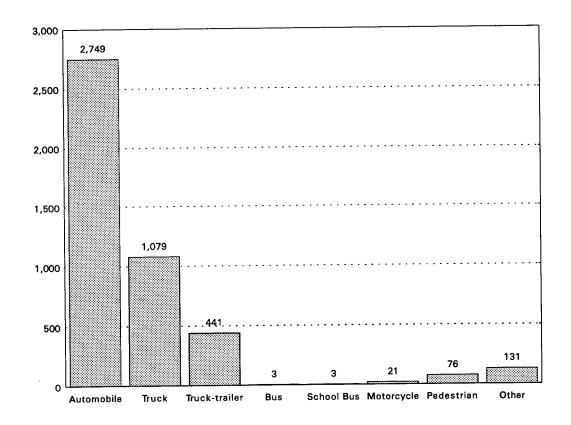


FIGURE 3B. CASUALTIES BY HIGHWAY USER

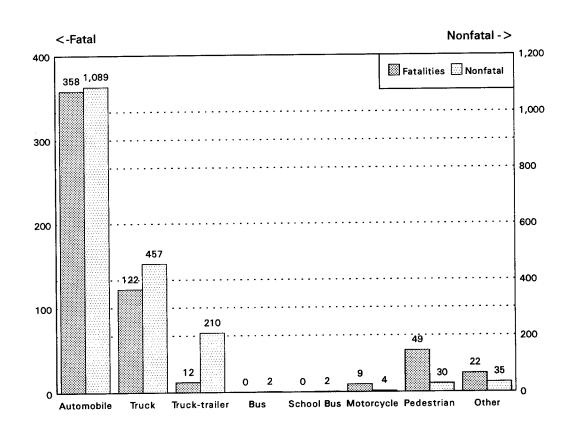


FIGURE 4A. MOTOR VEHICLE ACCIDENTS/INCIDENTS

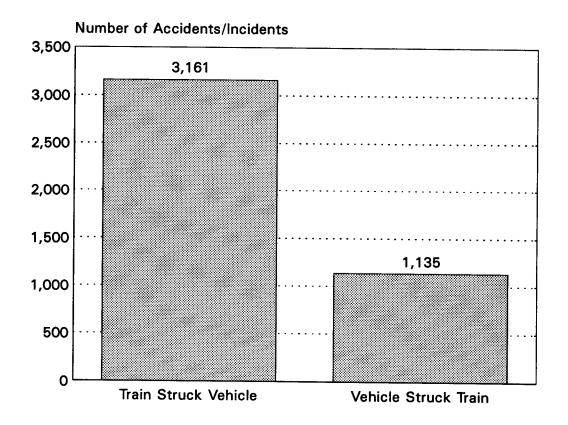
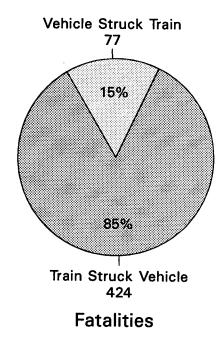


FIGURE 4B. CASUALTIES IN MOTOR VEHICLE ACCIDENT/INCIDENTS



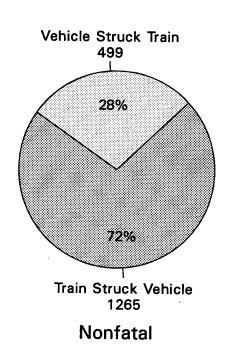


FIGURE 5A. MOTOR VEHICLE ACCIDENTS/INCIDENTS BY RAIL CONSIST SPEED

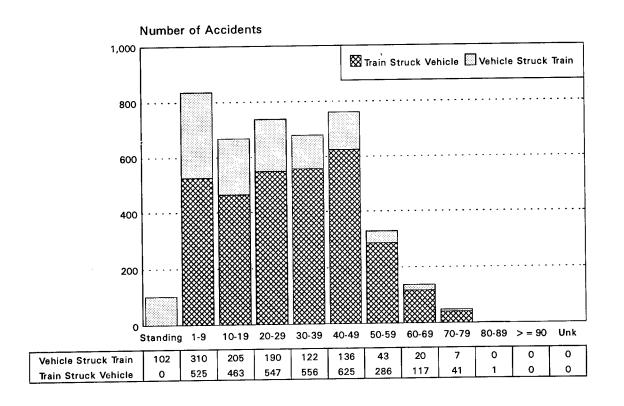
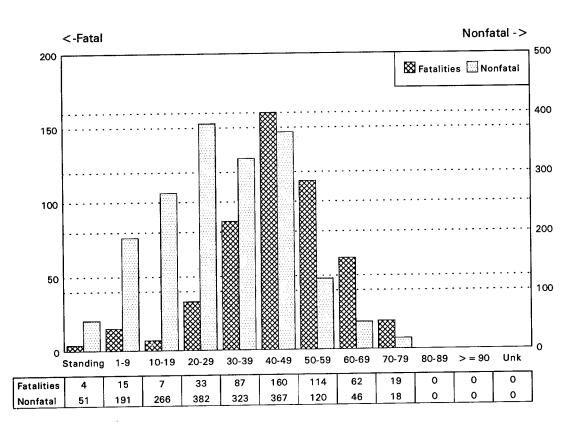
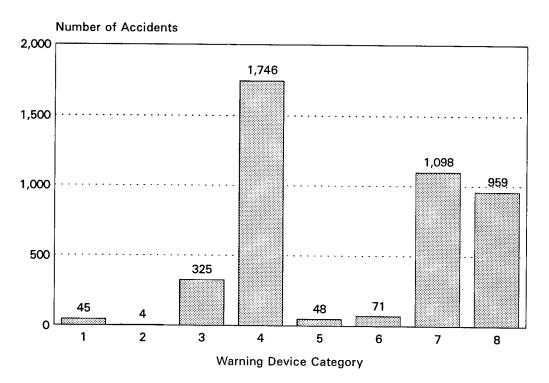


FIGURE 5B. CASUALTIES BY RAIL CONSIST SPEED



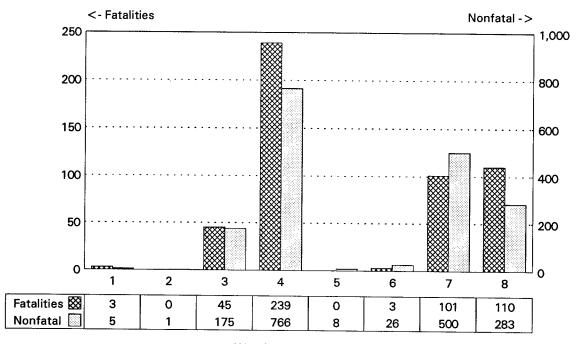


Motor vehicle accidents

1 = No signs or signals; 2 = Other signs; 3 = Stop Signs; 4 = Crossbucks; 5 = Special warning;

6 = Highway signals, wigwags, bells; 7 = Flashing lights; 8 = Gates

FIGURE 6B. CASUALTIES BY WARNING DEVICE CATEGORY



Warning Device Category

Motor vehicle accidents

1 = No signs or signals; 2 = Other signs; 3 = Stop Signs; 4 = Crossbucks; 5 = Special warning;

6 = Highway signals, wigwags, bells; 7 = Flashing lights; 8 = Gates

FIGURE 7A. ACCIDENTS/INCIDENTS BY NUMBER OF TRAINS PER DAY AND ANNUAL AVERAGE DAILY TRAFFIC

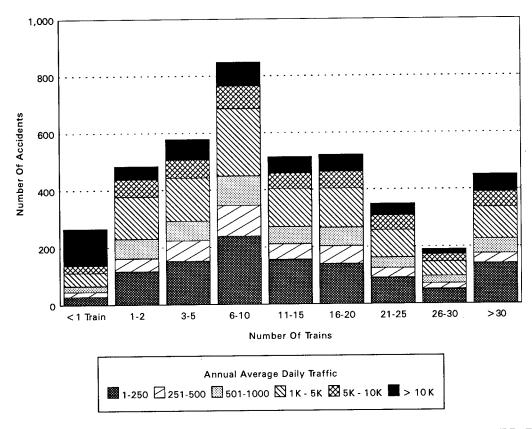


FIGURE 7B. ACCIDENTS/INCIDENTS BY NUMBER OF TRAINS PER DAY AND WARNING DEVICE CATEGORY

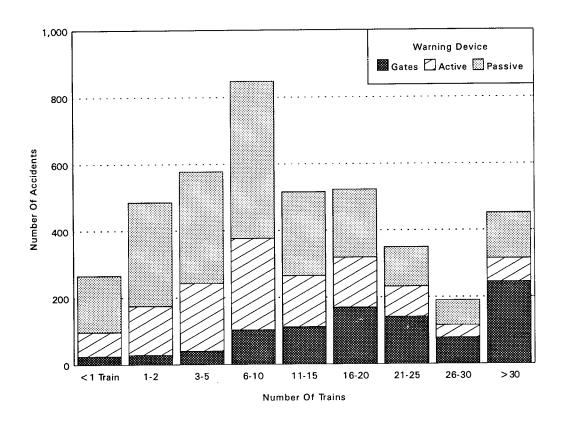
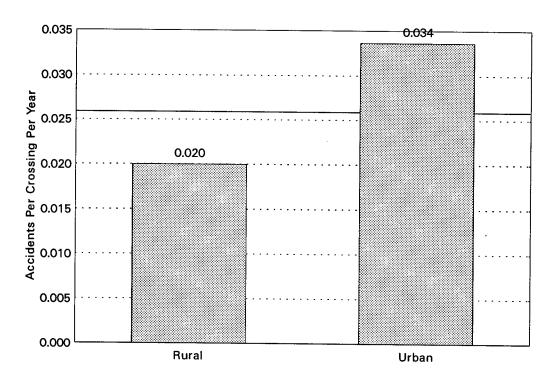
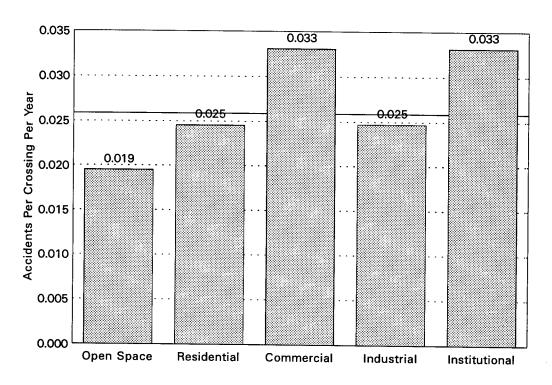


FIGURE 8. CROSSING ACCIDENT RATE BY LOCATION



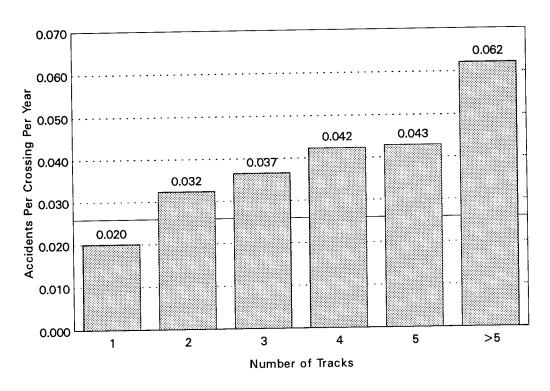
National average .02587

FIGURE 9. CROSSING ACCIDENT RATE BY TYPE DEVELOPMENT



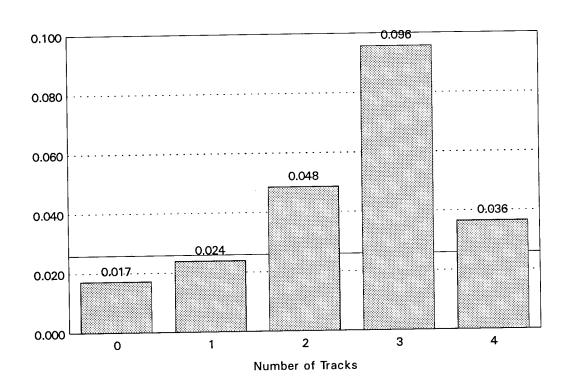
National average .02587

FIGURE 10. CROSSING ACCIDENT RATE BY NUMBER OF TRACKS



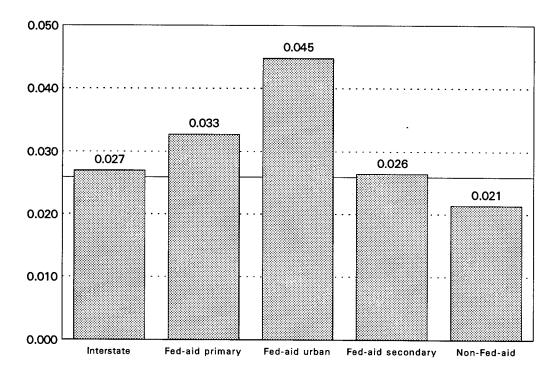
National average .02587

FIGURE 11. CROSSING ACCIDENT RATE BY NUMBER OF MAINLINE TRACKS



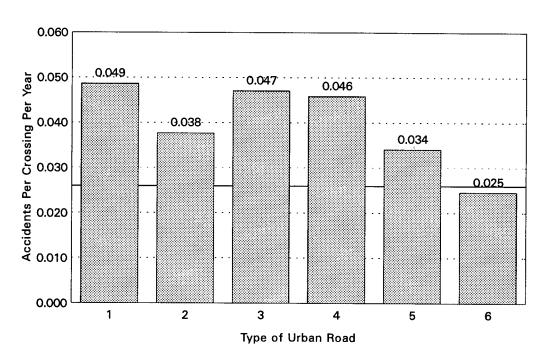
National average .02587

FIGURE 12. CROSSING ACCIDENT RATE BY HIGHWAY SYSTEM



National average .02587

FIGURE 13. CROSSING ACCIDENT RATE BY TYPE OF URBAN ROAD

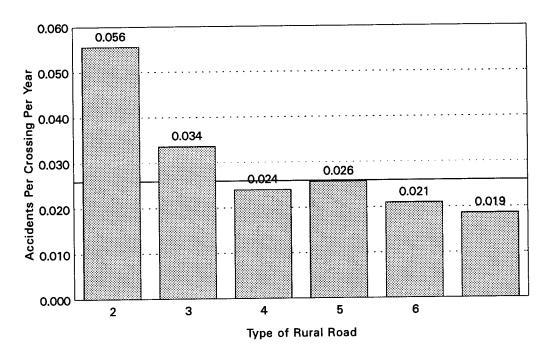


National average .02587

1 = Interstate; 2 = Other freeway or expressway; 3 = Other principal arterial;

4 = Minor arterial; 5 = Collector; 6 = Local

FIGURE 14. CROSSING ACCIDENT RATE BY TYPE OF RURAL ROAD

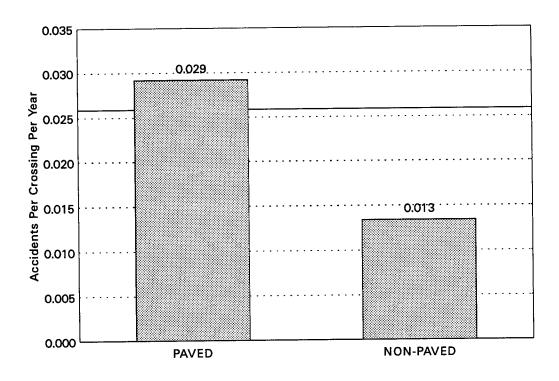


National average .02587

1 = Interstate; 2 = Other freeway or expressway; 3 = Other principal arterial;

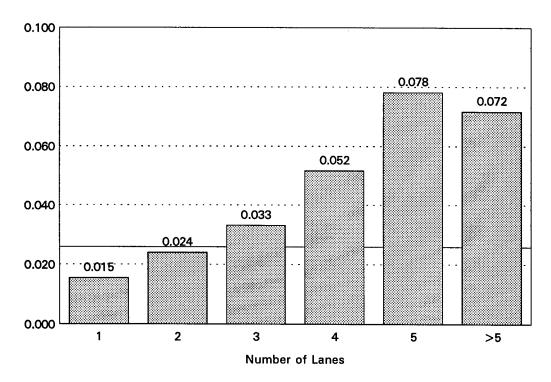
4 = Minor arterial; 5 = Collector; 6 = Local

FIGURE 15. CROSSING ACCIDENT RATE BY PAVED OR NON-PAVED ROAD SURFACE



National average .02587

FIGURE 16. CROSSING ACCIDENT RATE BY NUMBER OF TRAFFIC LANES



National average .02587

FIGURE 17. CROSSING ACCIDENT RATE BY SMALLEST CROSSING ANGLE

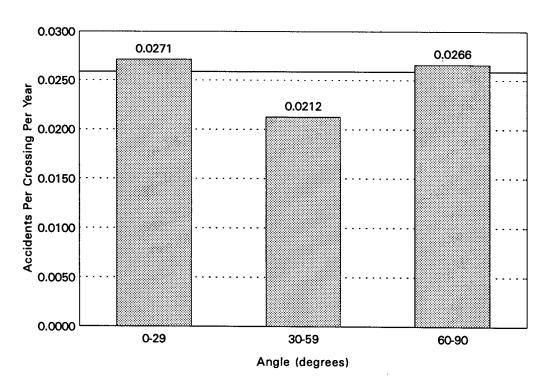
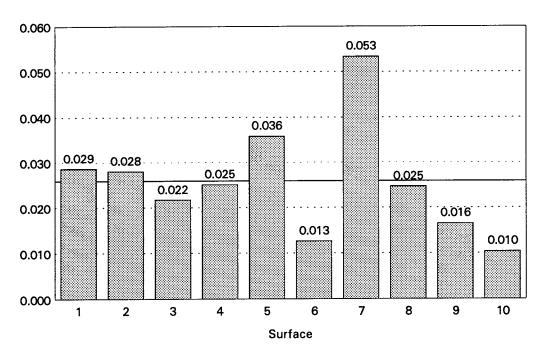


FIGURE 18. CROSSING ACCIDENT RATE BY CROSSING SURFACE



National average .02587

1 = Section timber; 2 = Full wood plank; 3 = Asphalt; 4 = Concrete slab; 5 = Concrete pavement;

6 = Rubber; 7 = Metal sections; 8 = Other metal; 9 = Unconsolidated; 10 = Other

FIGURE 19. CROSSING ACCIDENT RATE BY NUMBER OF TRAINS PER DAY

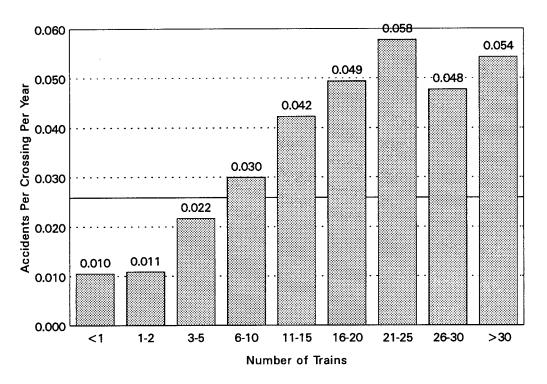
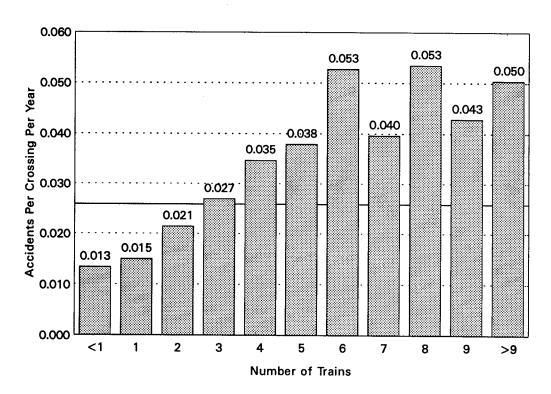


FIGURE 20. CROSSING ACCIDENT RATE BY NUMBER OF THRU-TRAINS DURING DAYLIGHT HOURS (6am to 6pm)



National average .02587

FIGURE 21. CROSSING ACCIDENT RATE BY MAXIMUM TIMETABLE SPEED

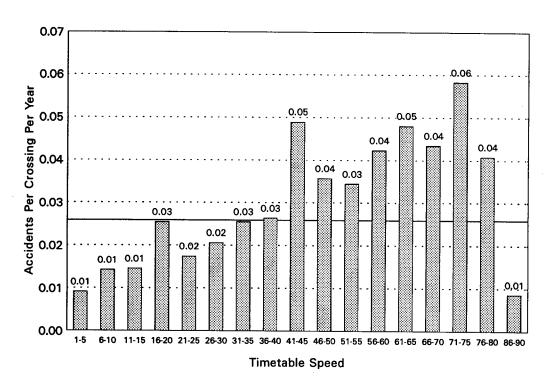


FIGURE 22. CROSSING ACCIDENT RATE BY ANNUAL AVERAGE DAILY TRAFFIC

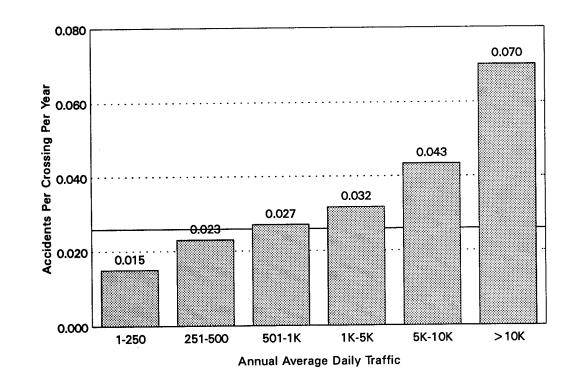
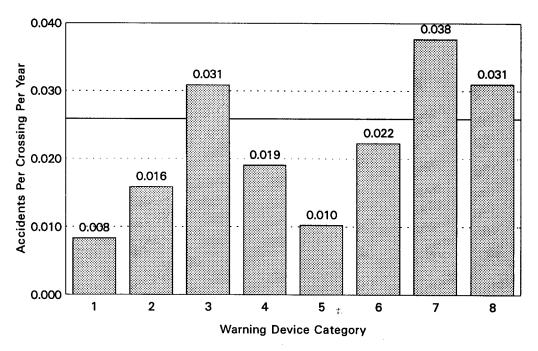


FIGURE 23. CROSSING ACCIDENT RATE BY NUMBER OF TRAINS AND ANNUAL AVERAGE DAILY TRAFFIC

Trains	1-250	Annual 251-500	Average 501-1k	Daily Tra	ffic 5k-10k¦	>10k
< 1	0.0027	0.0056	0.007	0.0083	0.0137	0.1034
1 - 2	0.0053	0.0088	0.0142	0.0172	0.0242	0.0275
3 - 5	0.0126	0.0223	0.0232	0.0277	0.0382	0.0535
6 - 10	¦ 0.0189	0.0313	0.0322	0.0394	0.0452	0.0619
11- 15	¦ 0.0293	0.0419	0.0438	0.0487	0.0672	0.0902
16- 20	0.033	0.05	0.0527	0.0553	0.0746	0.1019
21- 25	0.0383	0.0514	0.0532	0.0666	0.1062	0.1046
26- 30	0.0307	0.0431	0.0557	0.0563	0.088	0.0822
> 30	0.0417	0.0392	0.0592	0.06	0.0711	0.1012
	+		T	•		

FIGURE 24. CROSSING ACCIDENT RATE BY WARNING DEVICE CATEGORY



National average .02587

1 = No signs or signals; 2 = Other signs; 3 = Stop Signs; 4 = Crossbucks; 5 = Special warning;

6 = Highway signals, wigwags, bells; 7 = Flashing lights; 8 = Gates

	4	

(M A P S)

CURRENT YEAR ACCIDENTS

AT

PUBLIC CROSSINGS ONLY

FIGURE 25A. MOTOR VEHICLE ACCIDENTS/INCIDENTS AT PUBLIC HIGHWAY-RAIL CROSSINGS, 1994

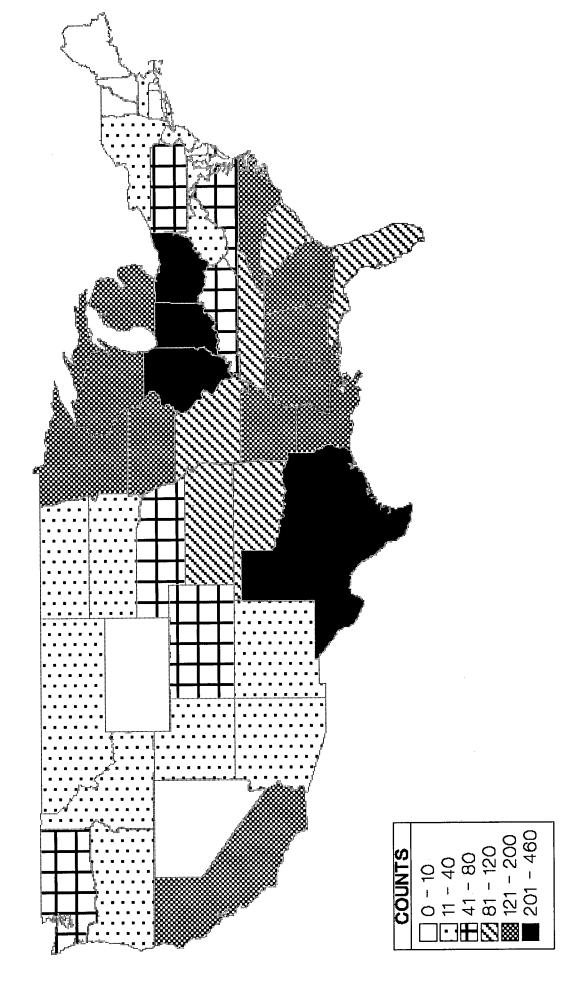


FIGURE 25B. MOTOR VEHICLE ACCIDENTS/INCIDENTS KILLED AT PUBLIC HIGHWAY-RAIL CROSSINGS, 1994

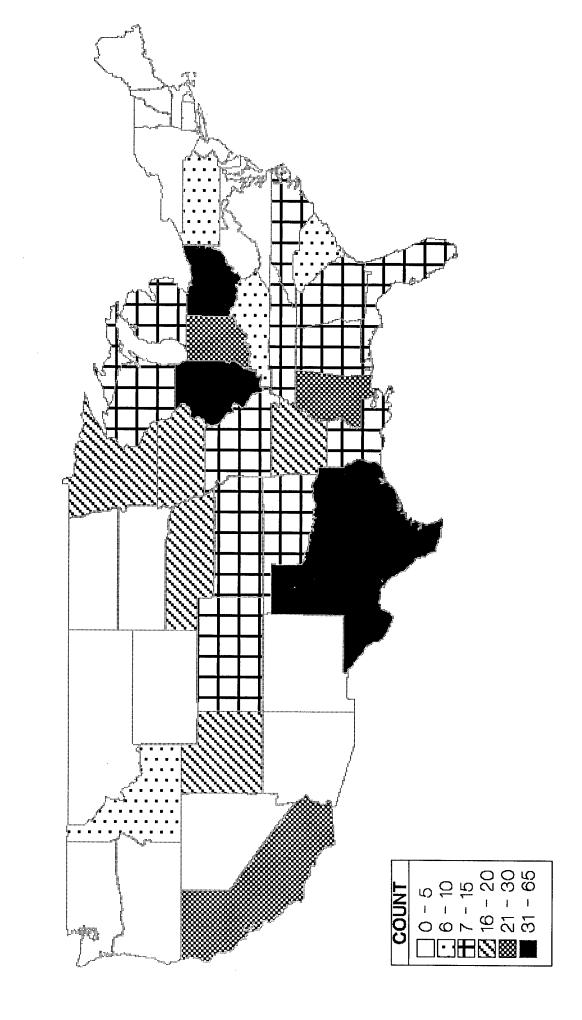
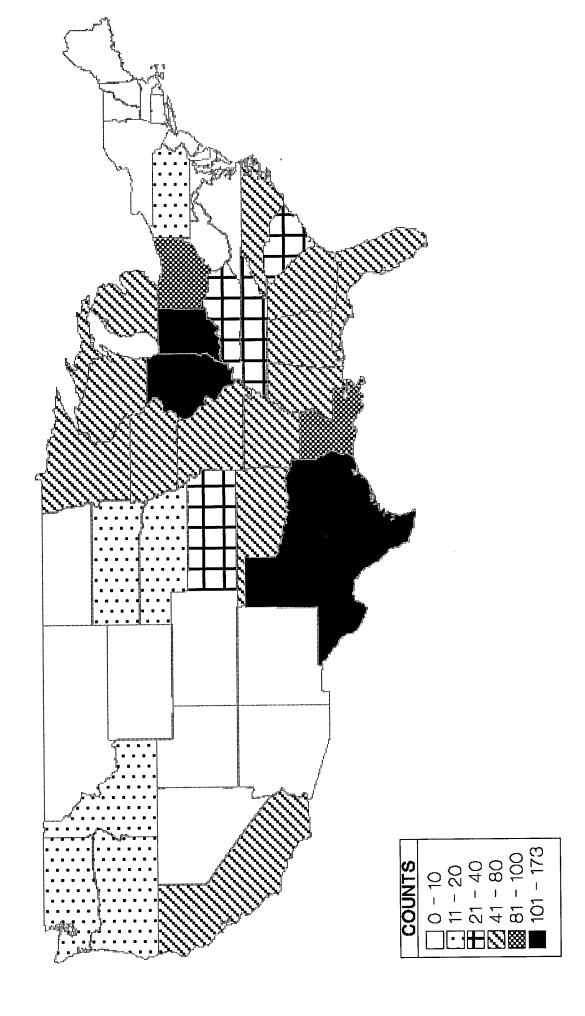


FIGURE 25C. MOTOR VEHICLE ACCIDENTS/INCIDENTS INJURED AT PUBLIC HIGHWAY-RAIL CROSSINGS, 1994



(D A T A)

OVERVIEW

OF CURRENT

YEAR

AT

PUBLIC CROSSINGS

ONLY

TABLE 3. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY STATE, 1994

						To	tal
	No. Of	Ki	illed	Inj	ured		lties
State	Acc/Inc	No.	x	No.	*	No.	x
Alabama	172	12	2.10	74	4.05	86	3.58
Alaska	3	3	.52	3	.16	6	.25
Arizona	24	2	.35	9	.49	11	.46
Arkansas	139	19	3.32	65	3.55	84	3.50
California	183	34	5.94	52	2.84	86	3.58
Colorado	43	11	1.92	11	.60	22	.92
Connecticut	4			1	.05	1	.04
Delaware	5	1	.17	4	.22	5	.21
Dist. of Columbia							
Florida	114	16	2.80 2.10	46 53	2.52 2.90	62 65	2.58 2.71
Georgia	148	12		12	.66	21	.87
Idaho	39 700	9	1.57 8.57	181	9.90	230	9.58
Illinois	308	49		123	6.72	150	6.25
Indiana	273	27	4.72	56	3.06	75	3.12
Iowa	157	19	3.32	31	1.69	47	1.96
Kansas	94	16	2.80 1.75	36	1.97	46	1.92
Kentucky	80	10	2.80	97	5.30	113	4.71
Louisiana	202	16	2.00	3	.16	3	.12
Maine	5					_	
Maryland	12			5	.27	5	.21
Massachusetts	16			3	.16	3	.12
Michigan	158	24	4.20	79	4.32	103	4.29
Minnesota	138	18	3.15	64	3.50	82	3.42
Mississippi	163	25	4.37	66	3.61	91	3.79
Missouri	115	12	2.10	43	2.35	55	2.29
Montana	18			9	.49	9	.37
Nebraska	86	20	3.50	23	1.26	43	1.79 .21
Nevada	7	2	.35	3	.16		
New Hampshire	2						
New Jersey	34	6	1.05	10	.55	16	.67
New Mexico	17	5	.87	6	.33	11	-46
New York	37	6	1.05	12	.66	18	.75
North Carolina	145	11	1.92	46	2.52	57	2.37
North Dakota	20	2	.35	12	.66	14	.58
Ohio	229	37	6.47	82	4.48	119	4.96
Oklahoma	116	16	2.80	66	3.61	82	3.42 .50
Oregon	38	1	.17	11	.60	12 27	1.12
Pennsylvania	73	8	1.40	19 	1.04		1.12
Rhode Island							
South Carolina	87	8	1.40	37	2.02	45	1.87
South Dakota	29	1	.17	15	.82	16	.67
Tennessee	99	12	2.10	25	1.37	37	1.54
Texas	502	55	9.62	227	12.41	282	11.75
Utah	26	17	2.97	5	.27	22	.92
Vermont	3			2	.11	2	.08
Virginia	56	5	.87	9	.49	14	.58
Washington	60	3	.52	15	.82	18	.75
West Virginia	41	3	.52	6	.33	9	.37
Wisconsin	17 <u>6</u>	14	2.45	72	3.94	86	3.58
Wyoming	7	5	.87				.21
Unknown							
Total	4,503	572	100.00	1,829	100.00	2,401	100.00

TABLE 4. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY STATE, 1994

	No. Of	*****	Casualti	PS	Vehicles	Per 10,0	M Ponistr	ation	
State	Acc/Inc	Kld	Inj	Total	Registered	Acc/Inc	Kld	Inj	
Alabama	167	12	71	83	Z //22 000	.49	0/	24	
	3	3	3		3,422,000		.04	.21	
Alaska	23	1		6	508,000	.06	.06	.06	
Arizona			9	10	2,980,000	.08		.03	
Arkansas	134	18	63	81	1,560,000	-86	.12	.40	
California	163	22	48	70	23,518,000	.07	.01	.02	
Colorado	41	11	10	21	3,144,000	.13	.03	.03	
Connecticut	4		1	1	2,638,000	.02			
Delaware	5	1	4	5	568,000	.09	.02	.07	
Dist. of Columbia					270,000				
Florida	104	11	43	54	10,132,000	.10	.01	.04	
Georgia	144	11	52	63	5,638,000	.26	.02	.09	
Idaho	38	7	12	19	1,062,000	.36	.07	.11	
Illinois	276	35	170	205	8,331,000	.33	.04	.20	
Indiana	265	26	119	145	4,850,000	.55	.05	.25	
Iowa	152	19	54	73	2,929,000	.52	.06	.18	
Kansas	89	14	31	45	1,965,000	.45	.07	.16	
Kentucky	80	10	36	46	2,615,000	.31	.04	.14	
Louisiana	196	15	95	110	3,242,000	.60	.05	.29	
Maine	5		3	3	1,071,000	.05		.03	
Maryland	12		5	5	3,543,000	.03		.01	
Massachusetts	15		3	3	3,956,000	.04		.01	
Michigan	143	15	74	89	7,599,000	.19	.02	.10	
Minnesota	132	17	62	79	3,869,000	.34	.04	.16	
Mississippi	158	24	65	89	2,056,000	.77	.12	.32	
Missouri	111	12	41	53		.27	.03		
	18		9	9	4,179,000			.10	
Montana Nebraska	73	16	20	36	967,000	.19		.09	
	4				1,490,000	.49	.11	.13	
Nevada New Hampshire	2		2		983,000 1,013,000	.04 .02		.02	
Nov. Janeau	30	3	9	12	E 7E3 000	05	04	00	
New Jersey		5	6	12	5,752,000	.05	.01	.02	
New Mexico	17			11	1,472,000	.12	.03	.04	
New York	33	5	10	15	10,428,000	.03		.01	
North Carolina	139	11	45	56	5,462,000	.25	.02	.08	
North Dakota	18	2	10	12	687,000	.26	.03	.15	
Ohio	225	35	81	116	9,647,000	.23	.04	.08	
Oklahoma	111	15	64	79	2,863,000	.39	.05	.22	
Oregon	38	1	11	12	2,748,000	-14		.04	
Pennsylvania	72	7	19	26	8,557,000	.08	.01	.02	
Rhode Island					728,000				
South Carolina	85	7	37	44	2,764,000	.31	.03	.13	
South Dakota	28	1	15	16	845,000	.33	.01	.18	
Tennessee	96	11	25	36	5,150,000	.19	.02	.05	
Texas	494	55	221	276	13,287,000	.37	-04	.17	
Utah	25	16	5	21	1,381,000	.18	.12	.04	
Vermont	3		2	2	502,000	.06		.04	
Virginia	53	4	9	13	5,593,000	.09	.01	.02	
Washington	58	3	14	17	4,654,000	.12	.01	.03	
West Virginia	40	2	6	8	1,375,000	.29	.01	.04	
Wisconsin	168	13	70	83	4,044,000	.42	.03	.17	
Wyoming	6	5		5	583,000	.10	.09		
Unknown					200,000				
Total	4,296	501	1,764	2,265	198,620,000	.22	.03	.09	

Note: Vehicle registration figures are for 1994 and were supplied by the Federal Highway Administration. Registration figures for Hawaii are omitted because it does not have any reporting railroads.

TABLE 5. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TYPE OF MOTOR VEHICLE, 1994

	A	utomob	ile		-Truck		-Tru	ck Tra	iler-		Bus-		S	chool	Bus	M	otorcy	cle
State	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Klď	Įnj
												-						
Alabama	108	10	50	33	1	15	26	1	6									
Alaska				2	2		1	1	3									
Arizona	17	1	9	4			2											
Arkansas	72	13	37	40	5	18	22		8									
California	97	18	28	36	2	15	26	1	4							4	1	1
Colorado	26	9	4	10	2	4	5		2									
Connecticut	3		1				1											
Delaware				2	1	1	3		3									
Dist. of Columbia																		
Florida	77	8	32	20	1	9	5		2							2	2	
Georgia	94	7	39	27	3	11	23	1	2									
Idaho	23	2	7	12	5	4	3		1									
Illinois	183	25	56	67	10	32	24		82							2		
Indiana	179	18	89	68	8	23	18		7									
Iowa	99	17	36	35	1	14	17		4							1	1	
Kansas	58	9	19	23	5	11	7		1							1		
Kentucky	52	10	25	15		4	11		5				2		2			
Louisiana	113	11	65	56	4	22	27		8									
Maine	2		1	3		2												
Maryland	9		3	3		2												
Massachusetts	12		3	3														
	105	10	54	32	4	18	5		2							1	1	
Michigan	84	- 14	40	37	3	18	11		4									
Minnesota	111	18	41	31	6	16	16		8									
Mississippi	66	9	21	33	2	19	12	1	1									
Missouri	8					6	2		3									
Montana			11	17	6	8	4	2	1							1		
Nebraska	51	8				2			'									
Nevada	2			2		2												
New Hampshire	2																	
New Jersey	20	2	5	8	1	4	2											
New Mexico	9	3		7	2	5	1		1									
New York	29	5	10	3									1					
North Carolina	96	9	34	27	2	7	16		4									
North Dakota	13	2	8	4		2	1											
Ohio	149	26	52	55	7	23	18	2	5							3		1
Oklahoma	68	10	36	32	4	15	10	1	12							1		1
Oregon	17	1	6	11		5	10											
Pennsylvania	39	6	6	24	1	13	9											
Rhode Island																		
South Carolina	52	6	26	21	1	6	12		5									
South Dakota	18		9	6	1	5	3									1		1
Tennessee	67	8	21	21	1	4	7									1	2	
Texas	282	27	131	159	27	65	51		24	1		1				1	1	
Utah	17	14	4	3	1		3			1		1				1	1	
Vermont	'1		i	2		1												
Virginia	37	2	6	9	1	3	7	1										
Washington	40	3	12	11		2	6			1								
West Virginia	30	2	3	8		3	2											
Wisconsin	109	10	48	46	2	20	12	1	2							1		
_	3	5		3														
Wyoming Unknown																		
UTIKTIOWIT				= =														
Total	2,749	358	1,089	1,079	122	457	441	12	210	3		2	3		2	21	9	4

TABLE 6. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TYPE OF CONSIST, 1994

		Freigh	t	P	asseng	er	-Yar	d Swit	ching		-Other	
State	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kłd	Inj	A/I	Kld	Inj
Alabama	134	12	58	4		1	18		6	11		6
Alaska	1	2					1			1	1	3
Arizona	10		5				10	1	4	3		
Arkansas	115	17	55				9		4	10	1	4
California	103	13	29	27	9	6	19		6	14		7
Colorado	33	9	ź	3	ź	2	3		1	2		ż
Connecticut				4		ī						
Delaware	4	1	2				1		2			
Dist. of Columbia												
Florida	60	7	31	26	3	7	10		4	8	1	1
Georgia	115	9	45	5	1		9		2	15	1	5
Idaho	34	7	11				3		1	1		
Illinois	186	23	76	36	11	83	24	1	7	30		4
Indiana	214	22	93	13	3	6	14	1	5	24		15
Iowa	116	19	44	2			19		4	15		6
Kansas	75	13	26	2	1		6		3	6		2
Kentucky	71	10	29				6		1	3		6
Louisiana	150	14	83	3		1	26		3	17	1	8
Maine	4		3							1		
Maryland	7		1				1			4		4
Massachusetts	9		3	5						1		
Michigan	118	14	68	3		1	11		2	11	1	3
Minnesota	91	17	47				20		2	21		13
Mississippi	115	20	56	18	3	6	11		1	14	1	2
Missouri	90	11	39	1			10	1	1	10		1
Montana	14		9				2			2		
Nebraska	65	14	17	1		1	2		1	5	2	1
Nevada	3		2	1								
New Hampshire	2											
New Jersey	15	2	3	9	1	4	2			4		2
New Mexico	15	5	6							2		
New York	23	2	10	7	3		. 1			2		
North Carolina	103	10	38	5			17	1	5	14		2
North Dakota	16	_2	10				2					
Ohio	193	31	76	3	1	1	15		3	14	3	1
Oklahoma	98	15	60				5		1	8		3
Oregon	29		10	1			5	1		3		1
Pennsylvania	52	6	15	6		2	6			8	1	2
Rhode Island												
South Carolina	69 17	7	30				9		4	7		3
South Dakota			9	1		2	3			7	1	
Tennessee	70	8	22	1		1	12			13	3	2
Texas	375	52	180	7		1	61	2	18	51	1	22
Utah	18	12	3	1	1		1	2		5	1	2
Vermont	3		2									
Virginia	45 71	4	8	2		1	2			4		,
Washington	31 34	2	10	3			16			8	1	4
West Virginia	36	2	6				1			3		
Wisconsin	129	10	54	1			20	1	9	18	2	7
Wyoming	5	5								1		
Unknown												
Total	3,281	429	1,389	201	39	127	413	11	100	401	22	148

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars.

TABLE 7. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE, 1994

Railroad	Gates	Flashing Lights	Hwy Sig. Wigwags Bells	Special	Cross- Bucks	Stop Signs	Other Signs	No Signs Or Signals	Tota
Alaska Railroad Corp.		3							
Alton & Southern Railroad	1	2							
Amtrak (Nat'l Railroad Passenger Corp.)	71	11	3		34	7			12
Atchison, Topeka And Santa Fe Railway Co.	54	38		1	65	1			15 ⁶
Bangor And Aroostook Railroad		2							r t
Belt Railway Co. of Chicago		2							i i
Bessemer & Lake Erie Railroad Co.					1				
Birmingham Southern Railroad Co.		1							
Burlington Northern Railroad Co.	63	102	3	1	193	63			42
Chicago And North Western Transp.	34	54	4	2	73	14		3	18
Chicago, Central & Pacific Railroad Co.	4	11		1	16	1		1	3
Consolidated Rail Corp.	79	72	6	6	82	9	3	13	27
Cuyahoga Valley Railway Co.		4/4			405	7/			
CSX Transp.	82	141	22		185	36		3	47(
Dakota, Minnesota & Eastern Railroad	1	4			9	1			1!
Delaware And Hudson Railroad Co.	4	1							
Denver And Rio Grande Western Railroad Co.	2	•			6				1;
Duluth, Missabe & Iron Range Railway Co.		1			1	1			
Elgin, Joliet And Eastern Railway Co.	1 23								21
Florida East Coast Railway Co.	23	6			10	2			2! 1(
Fox Valley & Western Ltd.		3			5	1			11
Gateway Western Railway Grand Trunk Western Railroad Co.	20	14			6	10			5(
	4				1)(
Houston Belt & Terminal Railway Co. Illinois Central Railroad Co.	6	34			47	3		1	9
Indiana Harbor Belt Railroad Co.	8	4		1	2	1			1(
Kansas City Southern Railway Co.	10	44	2	ż	104	i			16:
Long Island Rail Road	4			ī					10.
Metro North Commuter Railroad Co.	1	1			1				•
Montana Rail Link	i				6	3			10
New Jersey Transit Rail Operations	8								ì
Norfolk Southern Corp.	150	184	8	4	230	66		2	641
Northeast Illinois Regional Commuter Rail	17	4							2,
Northern Indiana Commuter Trans.	3	3				1			-;
Paducah & Louisville Railway Co.		3			1				1
Port Authority Trans Hudson									
Port Terminal Railroad Assoc.		1			2				:
Soo Line Railroad Co.	11	24			36	5		1	7
Southeastern Pennsylvania Transp.	4								1
Southern Pacific Transp. Co.	100	41	12	9	71	3			23(
Southern Pacific, Chicago-St. Louis Corp.	1	2	1		4				1
Springfield Terminal Railway Co.	1	3		1	1				(
St. Louis Southwestern Railway Co.	10	19	1		42	4			7(
Terminal Railroad Assoc. of St. Louis		2			1				:
Texas Mexican Railway Co.		4			2				(
Union Pacific Railroad Co.	133	101	2	4	266	42		16	564
Union Railroad Company (Pittsburgh)									•••
Wheeling & Lake Erie Railway Co.		6			24				3(
Wisconsin Central Ltd.	9	34	1		28	12			8/
All Other Railroads	39	111	6	8	190	38	1	5	391
Total	959	1,098	71	48	1,746	325	4	45	4,290

Note: "Special" are crossings protected by watchmen or members of train crew.

TABLE 7A. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY RAILROAD, 1994

	Motor Vehicle			Other	Highway (Users	Total		
itroad	Acc/Inc	Killed	Injured	Acc/Inc	Killed	Injured	Acc/Inc		Injured
ska Railroad Corp.	3	3	3				3	3	3
on & Southern Railroad	3		3				3		3
:rak (Nat'l Railroad Passenger Corp.)	126	26	34	21	14	2	147	40	36
chison, Topeka And Santa Fe Railway Co.	159	15	57	13	6	5	172	21	62
ngor And Aroostook Railroad	2		1				2		1
t Railway Co. of Chicago	2		1				2		i
semer & Lake Erie Railroad Co.	1						1		
mingham Southern Railroad Co.	1						i		
lington Northern Railroad Co.	425	79	198	28	5	9	453	84	207
icago And North Western Transp.	184	24	54	8	. 5	2	192	29	56
icago, Central & Pacific Railroad Co.	34	1	12	1		1	35	ĺ	13
nsolidated Rail Corp.	270	41	83	13	5	4	283	46	87
rahoga Valley Railway Co.									
(Transp.	476	44	241	18	7	6	494	51	247
cota, Minnesota & Eastern Railroad	15		- 8				15		8
.aware And Hudson Railroad Co.	5	1	6				5	1	6
over And Rio Grande Western Railroad Co.	12	4	6				12	4	6
.uth, Missabe & Iron Range Railway Co.	3	2	2				3	2	2
in, Joliet And Eastern Railway Co.	3		2				3		2
orida East Coast Railway Co.	25	2	14	3	1	2	_	3	
(Valley & Western Ltd.	16		7				28		16
	9	1	1	1		1	16	1	7
teway Western Railway	50	8	26	7	5	3	10	•	2
and Trunk Western Railroad Co.	50						57	13	29
uston Belt & Terminal Railway Co.	_	7					5		
linois Central Railroad Co.	91		41	2		1	93	7	42
diana Harbor Belt Railroad Co.	16		6	1		1	17		7
nsas City Southern Railway Co.	163	8	83	3			166	8	83
ng Island Rail Road	5	2					5	2	
tro North Commuter Railroad Co.	3						3		
ntana Rail Link	10	3	1				10	3	1
Jersey Transit Rail Operations	. 8	1	4	1	1		9	_2	4
folk Southern Corp.	644	70	191	23	5	7	667	75	198
theast Illinois Regional Commuter Rail	21	3	82	2		2	23	3	84
thern Indiana Commuter Trans.	7		1				7		1
ducah & Louisville Railway Co.	4						4		
rt Authority Trans Hudson									
rt Terminal Railroad Assoc.	_3						3		
) Line Railroad Co.	77	10	34	7		2	84	10	36
ıtheastern Pennsylvania Transp.	4		1				4		1
uthern Pacific Transp. Co.	236	23	92	10	2	6	246	25	98
uthern Pacific, Chicago-St. Louis Corp.	8						8		
ringfield Terminal Railway Co.	6		3	1			7		3
. Louis Southwestern Railway Co.	76	19	37	1			77	19	37
minal Railroad Assoc. of St. Louis	3						3		
kas Mexican Railway Co.	6	1	2				6	1	2
ion Pacific Railroad Co.	564	78	229	27	12	7	591	90	236
ion Railroad Company (Pittsburgh)									
eling & Lake Erie Railway Co.	30	2	21				30	2	21
sconsin Central Ltd.	84	8	35	4		1	88	8	36
l Other Railroads	398	15	142	12	3	3	410	18	145
Total	4,296	501	1,764	207	71	65	4,503	572	1,829

TABLE 8. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE, 1994

State	Gates	Flashing Lights	Hwy Sig. Wigwags Bells	Special	Cross- Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
Alabama	9	35	6	1	85	31			167
Alaska		3							3
Arizona	11	9		1	2				23
Arkansas	24	36			70	3		1	134
California	95	26	5	7	23	6		1	163
Colorado	6	9	2		17	7			41
Connecticut	2	1				1			4
Delaware	1	3			1				5
Dist. of Columbia							*		
Florida	67	18	1	1	13 56	4 20			104 144
Georgia	52	13	2	1		14			38
Idaho	1	3	2	1 3	17 84	4		8	276
Illinois	104	72 97	1 8		78	22		3	265
Indiana	66	87 74	8 2	1	76 82	9		4	152
Iowa	18	36	2	1	53	4		1	89
Kansas	21	9	3	2	23	1		ż	80
Kentucky	17	32	3 7	1	23 88	4		2	196
Louisiana	26	68			1			•••	5
Maine		4							-
Maryland	2	2	1	2	3	2			12
Massachusetts	6	7		1	1				15
Michigan	25	56		1	38	23			143
Minnesota	10	35			46	40		1	132
Mississippi	8	51	1		80	16		2	158
Missouri	18	25	1	2	59	6			111
Montana	2	1			7	8			<u>18</u>
Nebraska	14	7			42	9		1	73
Nevada	3				1				4
New Hampshire	1				1				2
New Jersey	10	13		3	1	1	1	1	30 17
New Mexico	5	4			8				33
New York	20	5		2	6			2	139
North Carolina	29	31	2	1	73	1			18
North Dakota	_2	.4			8	4	1	4	225
Ohio	39	43	5	1	123 67	9 7			111
Oklahoma	13	23	1	2	12	9		1	38
Oregon	10	3	1	1	20	2	1	5	72
Pennsylvania	18	23	2						
Rhode Island									
South Carolina	12	28	5	4	28	8			85
South Dakota		8	1		11	8			28
Tennessee	16	27	3		47	2		1	96
Texas	120	113	3	3	233	18		4	494
Utah	6	2			17				25
Vermont		1		1		**-	1		3
Virginia	16	24	1	2	9	1			53
Washington	13	14		1	23	6		1	58
West Virginia	10	14	1		<u>13</u>	2			40
Wisconsin	9	69	4		7 <u>3</u>	13			168
Wyoming	2	1			3				6
Unknown									
Total	959	1,098	71	48	1,746	325	4	45	4,296

Note: "Special" are crossings protected by watchmen or members of train crew.

TABLE 9. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY HIGHWAY USER, 1994

	Ac	c/Inc	K	illed	In	iured	Fatal	Injury	
Type Of Vehicle	No.	×	No.	x	No.	×	Acc/Inc	Acc/Inc	
Automobile	2.749	61.05	358	62.59	1,089	59.54	284	774	
Truck	1,079	23.96	122	21.33	457	24.99	104	348	
Truck-trailer	441	9.79	12	2.10	210	11.48	12	95	
Bus	3	.07			2	.11		2	
School bus	3	.07			2	.11		1	
Motorcycle	21	.47	9	1.57	4	.22	8	4	
Pedestrian	76	1.69	49	8.57	30	1.64	49	27	
Other	131	2.91	22	3.85	35	1.91	20	31	
Total	4,503	100.00	572	100.00	1,829	100.00	477	1,282	

TABLE 10. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CIRCUMSTANCE, 1994

	Ac	c/Inc	k	illed	1r	jured	Fatal	Injury	
Circumstance	No.	X	No.	*	No.	*	Acc/Inc	Acc/Inc	
Struck by consist Ran into consist.	3,161 1,135	73.58 26.42	424 77	84.63 15.37	1,265 499	71.71 28.29	341 67	845 379	
Total	4,296	100.00	501	100.00	1,764	100.00	408	1,224	

TABLE 11. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS BY TYPE OF VEHICLE AND NUMBER OF OCCUPANTS, 1994

Vehicle	# of A/I	# of Occupants	Occupants Per A/I	Killed	Killed Per A/I	injured	Injured Per A/I	Vehicle Damage	Damage Per A/I
Automobile	2,749	3,425	1.25	358	.13	1.075	.39	6.560.147	2,386
Truck	1,079	1,261	1.17	122	.11	442	.41	4,983,806	4,619
Truck-trailer	441	410	.93	11	.02	67	.15	4,972,413	11,275
Bus	3	2	.67	0	.00	0	.00	203,500	67,833
School bus	3	3	1.00	0	.00	2	.67	·	-
Motorcycle	21	19	.90	9	.43	4	.19	19,500	929
Total	4,296	5,120	1.19	500	.12	1,590	.37	16,739,366	3,897

TABLE 12. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CIRCUMSTANCE, 1994

		-Dawn-			Day-			Dusk			Dark	
Type Of Vehicle	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	S T	STR	J C K	HIG	HWA	ΥU	SER					
Automobile	45	7	22	1,093	172	459	80	18	40	755	111	242
Truck	20	3	6	524	79	205	22	2	12	208	22	80
Truck-trailer	10		3	307	7	173	12			73	1	18
Bus				3		2						
School bus				3		2						
Motorcycle				5	2	1				1		
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340
HIGHWAY US	E R	STRI	JCK	R A I	L C	DNS	I S T					
Automobile	25		12	345	15	126	23		9	383	35	179
Truck	19	1	11	150	8	62	9		3	127	7	78
Truck-trailer	1		3	26	2	10				12	2	3
Bus												
School bus												
Motorcycle				7	2	1	1	1		7	4	2
Total	45	1	26	528	27	199	33	1	12	529	48	262
GRAND TOTA	L											
Automobile	70	7	34	1,438	187	585	103	18	49	1,138	146	421
Truck	39	4	17	674	87	267	31	2	15	335	29	158
Truck-trailer	11		6	333	9	183	12			85	3	21
Bus				3		2						
School bus				3		2						
Motorcycle				12	4	2	1	1		8	4	2
Total	120	11	57	2,463	287 1	,041	147	21	64	1,566	182	602

TABLE 13. ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TYPE OF PERSON, 1994

	E	OD	E	NOD	P	SGR	N	ONT	TI	RES	C1	ONT		-Total	L
Type Of Vehicle	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	A/I
RAIL CONSI	s t	STRI	nck	HIG	H W A	Y U S	SER								
Automobile		10				2	227	605	81	146			308	763	1,973
Truck		13					92	245	14	45			106	303	774
Truck-trailer		64				76	8	42		12			8	194	402
Bus		2												2	3
School bus								2						2	3
Motorcycle							1		1	1			2	1	6
Pedestrian		3					19	11	27	13			46	27	70
Other		5					11	22	8	3			19	30	116
Total		97				78	358	927	131	220			489	1,322	3,347
HIGHWAY US	E R	STR	UCK	RAI	L C	ONS	I S T								
Automobile		3					38	275	12	48			50	326	776
Truck		2					15	125	1	27			16	154	305
Truck-trailer	1	3						8	3	5			4	16	39
Bus															
School bus															
Motorcycle							7	2		1			7	3	15
Pedestrian							2		1	3			3	3	6
Other		1					1	3	2	1			3	5	15
Total	1	9					63	413	19	85			83	507	1,156
GRAND TOTA	L														
Automobile		13				2	265	880	93	194			358	1,089	2,749
Truck		15					107	370	15	72			122	457	1,079
Truck-trailer	1	67				76	8	50	3	17			12	210	441
Bus		2												2	3
School bus								2						2	3
Motorcycle							8	2	1	2			9	4	21
Pedestrian		3					21	11	28	16			49	30	76
Other		6					12	25	10	4			22	35	131
Total	1	106				78	421	1,340	150	305			572	1,829	4,503

Note: EOD = Employee on duty PSGR = Passenger on train

TRES = Trespasser

ENOD = Employee not on duty

NONT = Nontrespasser CONT = Contractor employee

TABLE 14. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY VEHICLE SPEED, CIRCUMSTANCE, AND VISIBILITY, 1994

		-Dawn-			Day-			Dusk			Dark			-Total	l
Speed Of Vehicle	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	s t	STR	пск	HIG	HWA	YU	SER							·	
Standing	26		3	595	28	150	28	1	5	408	17	61	1,057	46	219
1-9	19	7	10	471	71	166	24	4	9	157	23	47	671	105	232
10-19	9	1	7	393	64	198	28	5	20	181	26	88	611	96	313
20-29	8.	1	5	206	45	103	16		11	119	14	56	349	60	175
30-39	5		2	112	19	56	6	4	2	64	17	37	187	40	97
40-49	1		1	47	5	29	2	4	1	25	7	12	75	16	43
50-59	1		1	17	6	20				16	7	13	34	13	34
60 and over				4	3					1	1	1	5	4	1
Jnknown	6	1	2	90	19	120	10	2	4	66	22	25	172	44	151
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340	3,161	424	1,265
HIGHWAY US	E R	STRI	nck	R A I	L C	ONS	I S T								
Standing															
1-9	12		5	102	1	28	6			95	1	27	215	2	60
10-19	7		2	136	1	41	7		2	114	2	32	264	3	77
20-29	7		4	111	6	44	8			100	6	59	226	12	107
30-39	6	1	4	66	4	34	5	1	6	68	7	48	145	13	92
40-49	6		7	43	5	26	4		2	48	16	30	101	21	65
50-59	2		1	26	4	14	1		1	41	10	36	70	14	52
50 and over				9	4	6				7	4	4	16	8	10
Jnknown	5		3	35	2	6	2		1	56	2	26	98	4	36
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
GRAND TOTA	L														
Standing	26		3	595	28	150	28	1	5	408	17	61	1,057	46	219
1-9	31	7	15	573	72	194	30	4	9	252	24	74	886	107	292
10-19	16	1	9	529	65	239	35	5	22	295	28	120	875	99	390
20-29	15	i	9	317	51	147	24		11	219	20	115	575	72	282
30-39	11	i	6	178	23	90	11	5	8	132	24	85	332	53	189
40-49	7		8	90	10	55	6	4	3	73	23	42	176	37	108
50-59	3		2	43	10	34	1		1	57	17	49	104	27	86
60 and over				13	7	6				8	.; 5	5	21	12	11
Unknown	11	1	5	125	21	126	12	2	5	122	24	51	270	48	187
Total	120	11	57	2,463	287	1,041	147	21	64	1,566	182	602	4,296	501	1,764

TABLE 15. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY POSITION AND TYPE OF VEHICLE, 1994

				Positi	on On (Cross	ing		
							Mo		
Vehicle	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kĺd	Inj
Automobile	230	9	30	480	29	132	2,039	320	927
Truck	66	1	4	145	5	28	868	116	425
Truck-trailer	36		3	92	1	19	313	11	188
Bus	1		1	1		1	1		
School bus	1						2		2
Motorcycle	1	1		4		1	16	8	3
Total	335	11	38	722	35	181	3 239	455	1 545

TABLE 16. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CONSIST SPEED CIRCUMSTANCE, AND VISIBILITY, 1994

		-Daum-			Day-			Dusk			Dark			-Total	
Speed Of Consist	A/ I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	s T	STR	υcκ	HIG	HVA	Y U	SER								
Standing															
1-9	14		3	312	1	40	19		4	180	1	33	525	2	80
10-19	10		4	278	1	96	13	1		162	3	71	463	5	171
20-29	7		5	328	ġ	211	14		7	198	9	76	547	18	299
30-39	15	3	9	340	39	166	31	1	25	170	28	65	556	71	265
	17	2	7	392	98	205	17	ż	12	199	42	70	625	144	294
40-49		1	ź	181		86		_							
50-59	7		_		65		13	8	2	85	35	12	286	109	102
60-69	2		1	76	38	28	6	8	2	33	12	10	117	58	41
70-79	3	4		27	9	10	1			10	4	3	41	17	13
80-89				1									1		
90 and over															
Unknown															
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340	3,161	424	1,265
HIGHWAY US	ER	STR	иск	RAI	L C	ONS	IST								
	,		-			_	•		_		_		400		
Standing	4	1	3	16		3	2		3	80	3	42	102	4	51
1-9	8		2	135	2	39	12		1	155	11	69	310	13	111
10-19	9		6	91		31	6		5	99	2	53	205	2	95
20-29	10		6	92	4	36	5		2	83	11	39	190	15	83
30-39	9		4	66	5	34	3	1	1	44	10	19	122	16	58
40-49	2		1	81	10	46	5			48	6	26	136	16	73
50-59	2		4	26	3	6				15	2	8	43	5	18
60-69	1			15	. 2	1				4	2	4	20	4	5
70-79				6	· 1	3				1	1	2	7	2	5
80-89															
90 and over															
Unknown															
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
		•	LO	720		177	33	•	'-	JL	40	LOL	1,133	''	477
GRAND TOTA	L														
Standing	4	1	3	16		3	2		3	80	3	42	102	4	51
1-9	22		5	447	3	79	31		5	335	12	102	835	15	191
10-19	19		10	369	1	127	19	1	5	261	5	124	668	7	266
20-29	17		11	420	13	247	19		9	281	20	115	737	33	382
30-39	24	3	13	406	44	200	34	2	26	214	38	84	678	87	323
	19	2	8	473	108	251	22	2	12	247		96			
40-49	9	1	6	207	68						48 77		761	160	367
50-59	-	-	_			92	13	8	2	100	37	20	329	114	120
60-69	3		1	91	40	29	6	8	2	37	14	14	137	62	46
70-79	3	4		33	10	13	1			11	5	5	48	19	18
80-89				1									1		
90 and over															
Unknown															
Total	120	11	57	2,463	287	1,041	147	21	64	1,566	182	602	4,296	501	1,764

TABLE 17. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY RAILROAD EQUIPMENT INVOLVED, 1994

	Consist	Vehicle		Par	t Of Co		Struck-					
	Struck	Struck	Lead		·Quar	·ter				Visi	bility-	
Type Consist	Vehicle	Consist	Unit	1	2	3	4	Unknown	Dawn	Day	Dusk	Dark
Train (Units Pulling).	2,738	823	516	139	63	45	51	9	94	2,078	122	1.267
Train (Units Pushing).	178	101	51	8	11	7	23	1	13	136	10	120
Train (Standing)		87	18	22	16	15	12	4	4	9	3	71
Cars (Moving)	51	37	37						2	80	2	4
Cars (Standing)		10	9		1					6		4
Light Locos (Moving)	194	70	64				6		7	152	10	95
Light Locos (Standing)		6	5				1			1		5
Other		1	1							1		
Total	3,161	1,135	701	169	91	67	93	14	120	2,463	147	1,566

Note: The "Lead" unit is the first unit to occupy the crossing.

TABLE 18. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TRAIN SPEED AND TYPE OF TRAIN, 1994

		Freigh	t	P	asseng	er	-Yar	d Swite	ching		-Other			-Total	
Speed Of Consist	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Klď	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Standing	67	4	36				20		10	15			102	4	51
1-9	364	7	75	13		2	279	3	65	179	5	49	835	15	191
10-19	489	5	207	14			73		18	92	2	41	668	7	266
20-29	632	27	278	24		78	31	3	6	50	3	20	737	33	382
30-39	612	79	299	25	2	10	5	2	1	36	4	13	678	87	323
40-49	714	152	351	23	2	3	3	1		21	5	13	761	160	367
50-59	293	100	111	27	9	4	2	2		7	3	5	329	114	120
60-69	103	54	30	33	8	14				1		2	137	62	46
70-79	7	1	2	41	18	16							48	19	18
80-89				1									1		
90 and over															
Unknown															
Total	3,281	429	1,389	201	39	127	413	11	100	401	22	148	,296	501	1,764

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars

TABLE 19. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY LENGTH OF CONSIST, 1994

		Freigh	ıt	р	asseng	er	-Yan	d Swite	ching		-Other			-Total	l
Number Of Cars	A/I	Klď	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	
1-9	463	20	199	147	27	118	216	4	52	109	3	44	935	54	413
10-19	333	37	139	37	9	3	99	1	24	5		2	474	47	168
20-29	333	32	130				33	2	8	4	2	4	370	36	142
30-39	275	57	124				31	3	7	4	3	2	310	63	133
40-49	261	41	124				8		2	2			271	41	126
50-59	266	55	98				8		4	2			276	55	102
60-69	237	30	105	1			5		2				243	30	107
70-79	231	42	93				6	1	1	1			238	43	94
80-89	192	23	73	1	1		1			1		2	195	24	75
90-99	213	23	100										213	23	100
100-109	168	31	74	1		2	1			2		2	172	31	78
110-119	190	26	85							1			191	26	85
120-129	45	5	13										45	5	13
130-139	15	3	4										15	3	4
140-149	12	1	7										12	1	7
150 And over	27	2	8										27	ż	8
$\label{locomotives} \textbf{Locomotives only.}$	20	1	13	14	2	4	5			270	14	92	309	17	109
Total	3,281	429	1,389	201	39	127	413	11	100	401	22	148	,296	501	1,764

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars.

TABLE 20. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY LENGTH OF CONSIST AND VISIBILITY, 1994

		Duni,			Day-			Dusk			Dark	_		-Total	
Number Of Cars	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	S T	STRU	у с к	HIG	HWA	Y U	SER								
1-9	10	4	3	455	30	232	23	6	7	162	7	53	650	47	295
10-19	10	1	5	217	24	74	16	<u></u>	8	103	13	27	346	38	114
20-29	6	1	3	177	15	77	6	2	1	81	12	20	270	30	101
30-39	11		1	123	43	42	8	3	5	85	12	40	227	58	88
40-49	4			115	21	56	5		7	83	14	30	207	35	93
50-59	3	2	2	119	30	42	12	6	3	75	10	25	209	48	72
60-69	4		4	97	21	45	6		3	72	5	26	179	26	78
70-79	2			109	15	43	4	1	5	79	18	28	194	34	76
80-89	8	1	8	94	14	36	4		1	52	6	14	158	21	59
90-99	2			98	13	53	9		7	53	4	17	162	17	77
100-109	4	1	1	80	11	40	4		3	39	14	17	127	26	61
110-119	3		1	79	14	45	4			55	10	18	141	24	64
120-129	1		1	14		7	5	1		14	1	3	34	2	11
130-139	1		1	6	1	2				5	2		12	3	3
140-149				5	1	1	1						6	1	1
150 And over	1			11	1	3				6		2	18	1	5
Locomotives only.	5		1	136	6	44	7	1	2	73	6	20	221	13	67
Total	75	10	71	1,935	260	842	114	20	52	1,037	134	3/0	3,161	424	1 245
				•				20	32	1,037	134	340	3, 101	424	1,265
HIGHWAY US			U C K			ONS			_		_				
1-9	7		1	170	5	68	10		3	98	2	46	285	7	118
10-19	1		1	67	4	18	6	1	2	54	4	33	128	9	54
20-29	4		4	51	4	15	3		1	42	2	21	100	6	41
30-39	3		2	30	2	14	1		1	49	3	28	83	5	45
40-49	4		4	25	2	10	1		3	34	4	16	64	6	33
50-59	4		2	28	2	10	3			32	5	18	67	7	30
60-69	3		1	21		9				40	4	19	64	4	29
70-79	3	1	2	7		2	1			33	8	14	44	9	18
80-89	3		1	12		5				22	3	10	37	3	16
90-99	3		1	22	1	9	1			25	5	13	51	6	23
100-109	4		4	19	2	7				22	3	6	45	5	17
110-119	1		1	25	2	12	1			23		8	50	2	21
120-129				5	1					6	2	2	11	3	2
130-139	1			2		1							3		1
140-149	1			2		1				3		5	6		6
150 And over				3	1	1				6		2	9	1	3
Locomotives only.	3		2	39	1	17	6		2	40	3	21	88	4	42
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
GRAND TOTA	L														
1-9	17	4	4	625	35	300	33	6	10	260	9	99	935	54	413
10-19	11	1	6	284	28	92	22	1	10	157	17	60	474	47	168
20-29	10	1	7	228	19	92		ź	2	123	14	41	370	36	142
30-39	14		3		45	56	ģ	3	6	134	15	68	310	63	133
40-49	8		4	140	23	66	6		10	117	18	46	271	41	126
50-59	7	2	4	147	32	52	15	6	3	107	15	43	276	55	102
60-69	7		5	118	21	54	6		3	112	9	45	243	30	107
70-79	5	1	2	116	15	45	5	1	5	112	26	42	238	43	94
80-89	11	i	9	106		41	4		1						
	5		1	120	14 14	62	10		7	74 78	9	24 30	195 213	24	75 100
90-99	8	1	5	99	13		4		3					23	100
	4		2			47 57	5			61 70	17	23	172	31	78
110-119					16	57 7	_			78 20	10	26	191	26	85 17
120-129	1		1	19	1	7		1		20	3	5	45 45	5	13
130-139	2		1	8	1	3				5	2		15	3	4
140-149	1			7	1	2	1			3		5	12	1	7
150 And over	1			14	2	4				12		4	27	2	8
Locomotives only.	8		3	175	7	61	13	1	4	113	9	41	309	17	109
Total	120	11	57	2,463	287	1,041	147	21	64	1,566	182	602	4,296	501	1,764
										,			, _, _		

TABLE 21. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TYPE AND CLASS OF TRACK, 1994

		-Main-			-Yard-			Siding	J	Ir	ndustry	/		Unknour	1		Total-	
	A/I	Kld	Inj		Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
1	317	5	97	173	2	34	23	1	8	175	2	51				688	. 10	190
2	727	31	294	35		14				17		3				787	31	312
3		118	572	6	1	1	3		4	5						1,133	119	577
4		298	600	3		6				2						1,439	298	606
5	176	41	60													176	41	60
6		1	3													4	1	3
Unknown	39		8	12			3		2	15	1	6				69	1	16
Total 3	,816	494	1,634	229	3	55	37	1	15	214	3	60				4,296	501	1,764

TABLE 22. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE AND MOTORIST ACTION, 1994

		ove Ard			opped <i>i</i> n Proc		-Did	Not 9	Stop		-Other			Unknow	n		-Totai	ļ
Warning Device	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Ìnj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Gates	580	95	228	3		2	20		7	342	15	45	14		1	959	110	283
Cantilever flshrs				26		9	251	32	119	62	4	20				339	36	148
Standard flashers				57	2	20	538	61	302	156	2	28	8		2	759	65	352
Hwy Sig,W W,Bells				5		1	44	3	21	21		4	1			71	3	26
Special Devices				4			34		7	10		1				48		8
Crossbucks				79	17	33	1,266	203	625	376	17	102	25	2	6	1,746	239	766
Stopsigns				28	4	11	226	38	136	68	3	28	3			325	45	175
Other Signs							3		1	1						4		1
No Signs Or Signl				3		2	27	3	3	14			1			45	3	5
Total	580	95	228	205	23	78	2,409	340	1,221	1,050	41	228	52	2	9	4,296	501	1,764

Note: "Special" are crossings protected by watchmen or members of train crew. "Hwy Sig" = Highway signals, W W = Wigwags.

TABLE 23. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY OPERATIONAL STATUS OF WARNING DEVICE, CIRCUMSTANCE, AND VISIBILITY, 1994

							Highw	ay User-			
	-Devi	ce Wor	king		truck B	y Consi	st	R	n Into	Consis	t
Warning Device	Yes	No	N/A	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Gates	929	7	23	29	362	23	354	11	81	4	95
Cantilever flshrs	337	2		5	137	9	76	1	50	5	56
Standard flashers	747	1	11	9	329	11	172	8	120	5	105
Hwy Sig,W W,Bells	71				39	1	12	1	5	3	10
Special Devices			48		9	1	11	2	5	2	18
Crossbucks			1,746	24	860	55	348	19	223	11	206
Stopsigns			325	8	171	12	50	3	43	3	35
Other Signs			4		1		1		1		1
No Signs Or Signl			45		27	2	13.				3
Total	2,084	10	2,202	75	1,935	114	1,037	45	528	33	529

Note: If a rail consist is intentionally grounded to prevent activation of the warning device, these are reported as "N/A."

TABLE 24. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, DURING DUSK AND DARK HOURS BY ILLUMINATION OF CROSSING AND CIRCUMSTANCE, 1994

	Struck By Consist			Ran	Into C	onsist		Total VI Kld In		
	A/I	Kld	Inj	A/I	Kld	lnj	A/I	Kld	Inj	
Lighted	719	56	323	270	16	111	989	72	434	
Not Lighted	1,777	272	736	625	47	296 2	2,402	319	1,032	
Not Reported	654	95	205	234	14	90	888	109	295	
Total	3,161	424	1,265	1,135	77	499	,296	501	1,764	

TABLE 25. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY CROSSING PROTECTION, 1994

		-Dawn-			Day-			Dusk			Dark			-Total	
Warning Device	A/I	Kld	Inj	A/I	Klď	Inj	A/I	Kld	Inj	I\A	Kld	Inj	A/I	Kld	Inj
RAIL CONSIST STR	uck	HI	GHW	AY U	SER										
Automatic, Both Sides	42	5	13	848	91	344	42	7	15	604	70	189	1,536	173	561
Automatic, Side Of Approach.	1			17	2	5	1			9		8	28	2	13
Automatic, Opposite Side				1			1			1			3		
Automatic, Side Not Reported				1									1		
Manual, Both Sides				7			1			10			18		
Manual, Side Of Approach				1									1		
Manual, Opposite Side										1			1		
Manual, Side Not Reported				1									1		
Other, Both Sides	30	5	16	1,001	162	477	63	10	37	389	64	140	1,483	241	670
Other, Side Of Approach	2		2	22		10	1			6		1	31		13
Other, Opposite Side				4		1	3	2		2		2	9	2	3
Other, Side Not Reported				5	3					2			7	3	
No Signs Or Signals				27	2	5	2	1		13			42	3	5
-					_			·							
Total	75	10	31	1,935	260	842	114	20	52	1,037	134	340	3,161	424	1,265
HIGHWAY USER STR	UCK	RA	I L C	ONS	IST										
Automatic, Both Sides	20		11	250	19	94	16		9	260	19	116	546	38	230
Automatic, Side Of Approach.	1			6						5	1	4	12	1	4
Automatic, Opposite Side							1						1		
Automatic, Side Not Reported										1		1	i		1
Manual, Both Sides	2		1	5			1			14		5	22		6
Manual, Side Of Approach										1		í	1		1
Manual, Opposite Side										ż		:	ż		
Manual, Side Not Reported							1			ī		1	2		1
Other, Both Sides	21	1	13	257	7	101	13	1	3	226	28	126	517	37	243
Other, Side Of Approach	1		1	8	i	4				13		8	22	1	13
Other, Opposite Side				1			1			3			5		
Other, Side Not Reported				i									1		
No Signs Or Signals										3			3		
Total	45	1	26	528	27	199	33	1	12	529	48	262	1,135	77	499
GRAND TOTAL															
Automatic, Both Sides	62	5	24	1,098	110	438	58	7	24	864	89	305	2,082	211	791
Automatic, Side Of Approach.	2			23	2	5	1			14	1	12	40	3	17
Automatic, Opposite Side				1			2			1			4		
Automatic, Side Not Reported				1						1		1	2		1
Manual, Both Sides	2		1	12			2			24		5	40		6
Manual, Side Of Approach				1						1		1	2		1
Manual, Opposite Side										3			3		
Manual, Side Not Reported				1			1			1		1	3		1
Other, Both Sides	51	6		1,258	169	578	76	11	40	615	92	-	2,000	278	913
Other, Side Of Approach	3		- ź	30	107	14	1			19		9	53	1	26
Other, Opposite Side				5		1	4	2		' 5		ź	14	ż	3
Other, Side Not Reported				6	3					2			8	3	
No Signs Or Signals				27	2	5	2	1		16			45	3	5
Total	120	11	F 7	2,463	207	1,041	147	21	.,	1,566	182	(02	4,296	501	

Note: Automatic devices include gates, flashing lights, and other devices which are activated by the approach of a rail consist. Manual devices include "Watchmen" and "Flagged by crew". "Other" devices include crossbucks, stop signs, etc.

TABLE 26. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY VISIBILTY AND CIRCUMSTANCE, 1994

	Struck	By Co	nsist	Ran	Into C	onsist		-Total	
Visibilty	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Dawn	75	10	31	45	1	26	120	11	57
Day		260	842	528	27	199 2	2,463	287	1,041
Dusk	114	20	52	33	1	12	147	21	64
Dark	1,037	134	340	529	48	262 '	1,566	182	602
Total	3,161	424	1,265	1,135	77	499	4,296	501	1,764

TABLE 27. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TEMPERATURE AND VISIBILITY, 1994

	S	truck By	/ Consi	st	Ra	n Into	Consis	t		Total			
Temperature	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	
Over 100				1		2				2		1	
80 To 100		552	18	69	2	124	2	32	2	676	20	101	
60 To 79	24	705	35	323	15	177	12	162	39	882	47	485	
40 To 59	29	384	29	376	8	101	9	180	37	485	38	556	
20 To 39	16	217	23	192	13	79	7	111	29	296	30	303	
0 To 19	5	62	6	65	6	35	2	36	11	97	8	101	
-20 To -1	1	15	3	11	1	9	1	7	2	24	4	18	
Under -20						1		1		1		1	
Not Reported													
Total	75	1,935	114	1,037	45	528	33	529	120	2,463	147	1,566	

TABLE 28. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY TIME OF DAY, 1994

	Struck	By C	onsist	Ran	Into C	onsist	[
TIME	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
MID TO 12:59 AM	95	15	27	47	1	20	142	16	47
1 TO 1:59 AM	79	5	25	50	7	29	129	12	54
2 TO 2:59 AM	78	12		57	4	31	135	16	56
3 TO 3:59 AM	61	5		38	2	30	99	7	47
4 TO 4:59 AM	39	2	12	25	2	11	64	4	23
5 TO 5:59 AM	51	3	18	32	1	18	83	4	36
6 TO 6:59 AM	102	18	28	36	1	15	138	19	43
7 TO 7:59 AM	141	22	125	39	2	15	180	24	140
8 TO 8:59 AM	152	21	73	47	3	12	199	24	85
9 TO 9:59 AM	167	22		53	2	20	220	24	87
10 TO 10:59 AM.	166	23	60	33	1	9	199	24	69
11 TO 11:59 AM.	161	16	73	55	4	20	216	20	93
NOON TO 12:59 PM.	192	21	64	45	1	15	237	22	79
1 TO 1:59 PM	188	17	78	36	2	11	224	19	89
2 TO 2:59 PM	173	19	72	64	6	23	237	25	95
3 TO 3:59 PM	196	33	61	60	2	27	256	35	88
4 TO 4:59 PM	178	23	78	45	3	19	223	26	97
5 TO 5:59 PM	166	22	59	59	3	22	225	25	81
6 TO 6:59 PM	182	28	70	52		19	234	28	89
7 TO 7:59 PM	129	30	63	47	2	31	176	32	94
8 TO 8:59 PM	131	18	52	45	8	26	176	26	78
9 TO 9:59 PM	122	17	44	56	3	29	178	20	73
10 TO 10:59 PM.	105	22	43	55	8	24	160	30	67
11 TO 11:59 PM.	107	10	31	59	9	23	166	19	54
Unknown									
Total	3,161	424	1,265	1,135	77	499 4	,296	501	1,764

TABLE 29. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY MONTH AND CIRCUMSTANCE, 1994

	Struck	By Consist Ran			Into C	onsist		-Tota	t
Month	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
January	366	36	153	140	6	51	506	42	204
February	293	44	115	118	5	53	411	49	168
March	252	24	100	100	10	38	352	34	138
April	229	24	83	90	2	44	319	26	127
May	259	25	89	72	7	30	331	32	119
June	238	32	170	80	2	35	318	34	205
July	265	43	114	71	9	28	336	52	142
August	257	43	113	87	7	34	344	50	147
September	235	38	66	81	3	46	316	41	112
October	240	31	85	85	1	46	325	32	131
November	250	42	82	109	12	50	359	54	132
December	277	42	95	102	13	44	379	55	139
Total	3,161	424	1,265	1,135	77	499 4	, 296	501	1,764

TABLE 30. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY WEATHER CIRCUMSTANCE AND VISIBILITY, 1994

		Struck By	y Consi	st	Ra	Ran Into Consist				Total				
Weather	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark		
Clear	45	1,363	64	655	25	362	16	308	70	1,725	80	963		
Cloudy	14	423	35	219	7	83	9	113	21	506	44	332		
Rain	4	107	8	110	3	46	4	52	7	153	12	162		
Fog	9	11	1	18	6	14		28	15	25	1	46		
Sleet	1	1				2		3	1	-3		70		
Snow	2	30	6	35	4	21	4	25	6	51	10	60		
Not Reported														
Total	75	1,935	114	1,037	45	528	33	529	120	2,463	147	1,566		

TABLE 31. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY OBSTRUCTION OF MOTORIST VIEW, CIRCUMSTANCE AND VISIBILITY, 1994

		Struck By	/ Cons	ist	Ra	Ran Into Consist				Total			
Type Obstruction	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	
Permanent structure	1	39	3	15	1	15	2	4	2	54	E	19	
Standing RR Equipment.		16	1	7		3		4		19	1	11	
Passing Train		10		2		1		2		11		4	
Topography		16		5		7		5		23		4	
Vegetation		36	3	7	2	17		5	2	53	3	(
Highway Vehicle		9		1		5		2		14		7	
Other		10	3	8		5		8		15	3	3	
Not Obstructed	74	1,799	104	992	42	475	31	505	116	2,274	135	16	
Unknown												1,497	
Total	75	1,935	114	1,037	45	528	33	529	120	2,463	147	1,566	

TABLE 32. (MV) ACCIDENTS/INCIDENTS AT HIGHWAY-RAIL CROSSINGS, BY MOTORIST ACTION AND TYPE OF VEHICLE, 1994

Type Of Vehicle	Struck Yes	By Secon No	d Train Unknown	Passed Yes	Standing No	Vehicle Unknown
Automobile	53	2,649	47	91	2,439	219
Truck	16	1.053	10	18	995	66
Truck-trailer	10	425	6	11	405	25
Bus		3			2	1
School bus		3			3	
Motorcycle		21		1	19	1
Total	79	4,154	63	121	3,863	312

(G R A P H S)

HIGHWAY-RAIL CROSSING

INVENTORY

AT

PUBLIC CROSSINGS ONLY

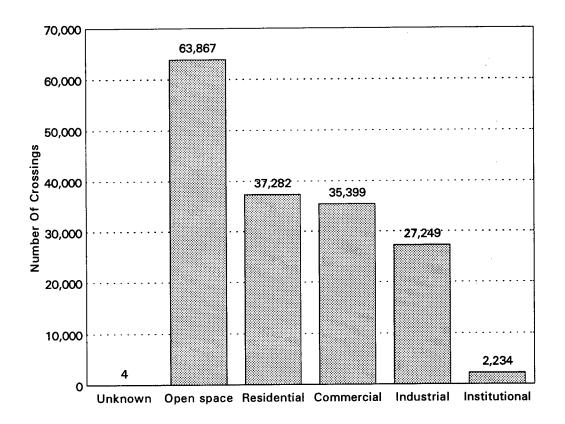


FIGURE 27. CROSSINGS BY NUMBER OF TRACKS

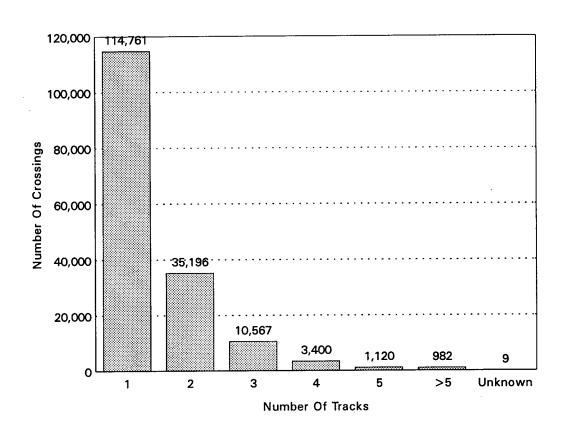


FIGURE 28. CROSSINGS BY NUMBER OF LANES

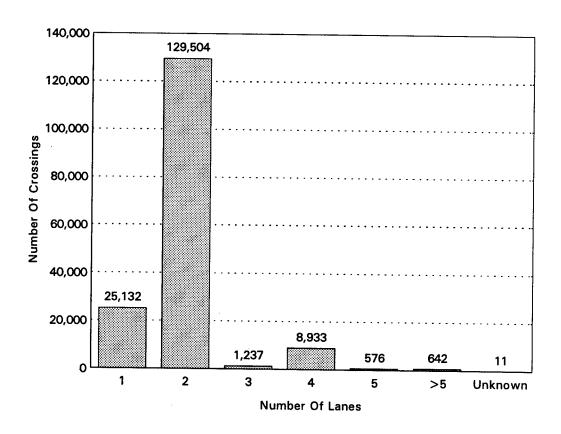
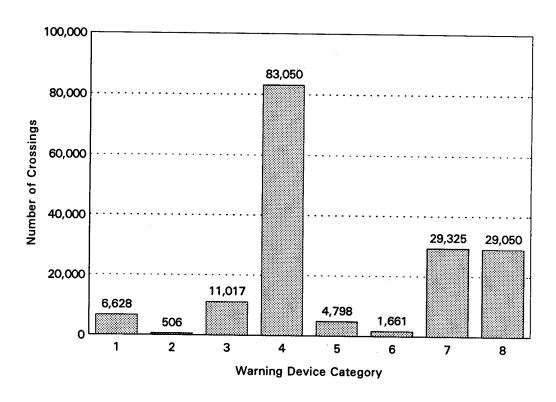


FIGURE 29. CROSSINGS BY WARNING DEVICE CATEGORY



^{1 =} No signs or signals; 2 = Other signs; 3 = Stop Signs; 4 = Crossbucks; 5 = Special warning; 6 = Highway signals, wigwags, bells; 7 = Flashing lights; 8 = Gates

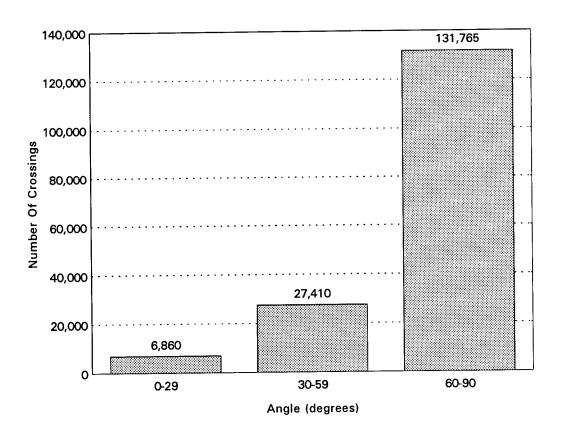
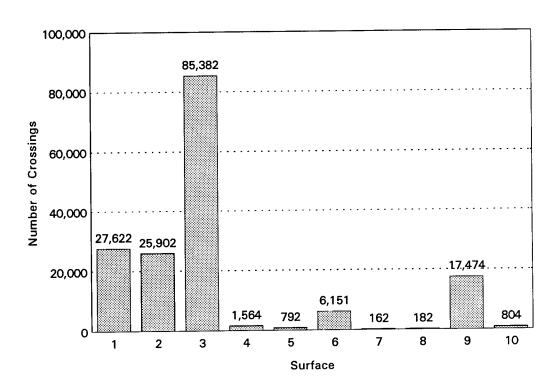


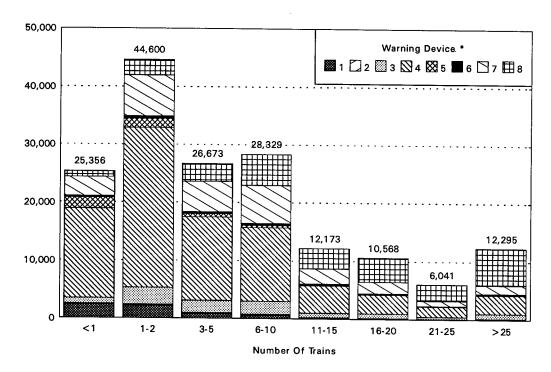
FIGURE 31. CROSSINGS BY CROSSING SURFACE



^{1 =} Section timber; 2 = Full wood plank; 3 = Asphalt; 4 = Concrete slab; 5 = Concrete pavement;

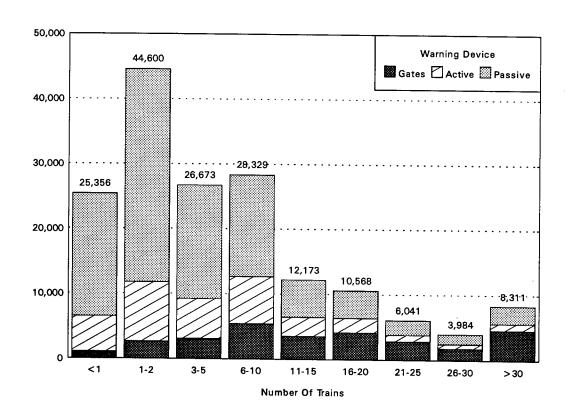
^{6 =} Rubber; 7 = Metal sections; 8 = Other metal; 9 = Unconsolidated; 10 = Other

FIGURE 32. CROSSINGS BY NUMBER OF TRAINS PER DAY AND WARNING DEVICE CATEGORY



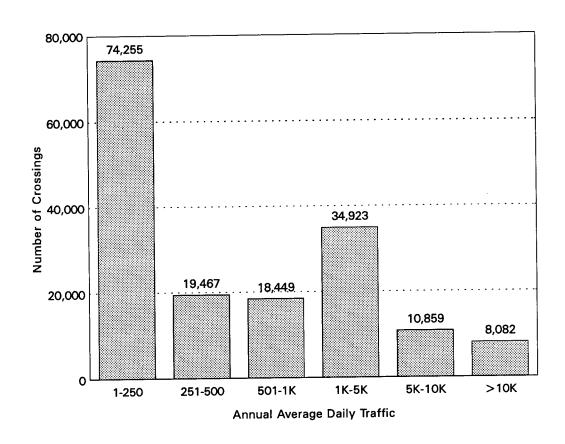
^{1 =} No signs or signals; 2 = Other signs; 3 = Stop signs; 4 = Crossbucks;

FIGURE 34. CROSSINGS BY NUMBER OF TRAINS PER DAY AND TYPE OF WARNING DEVICE



^{5 =} Special warning devices; 6 = Highway signals, wigwags, bells;

^{7 =} Flashing lights; 8 = Gates



(M A P S)

HIGHWAY-RAIL CROSSING

FIGURE 37A. NUMBER OF PUBLIC CROSSINGS BY STATE, 1994

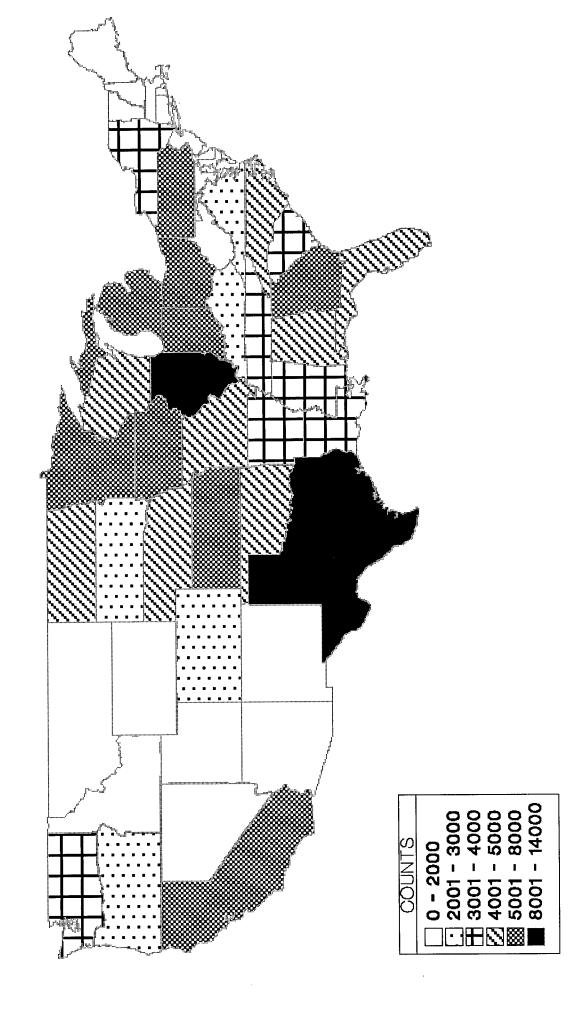
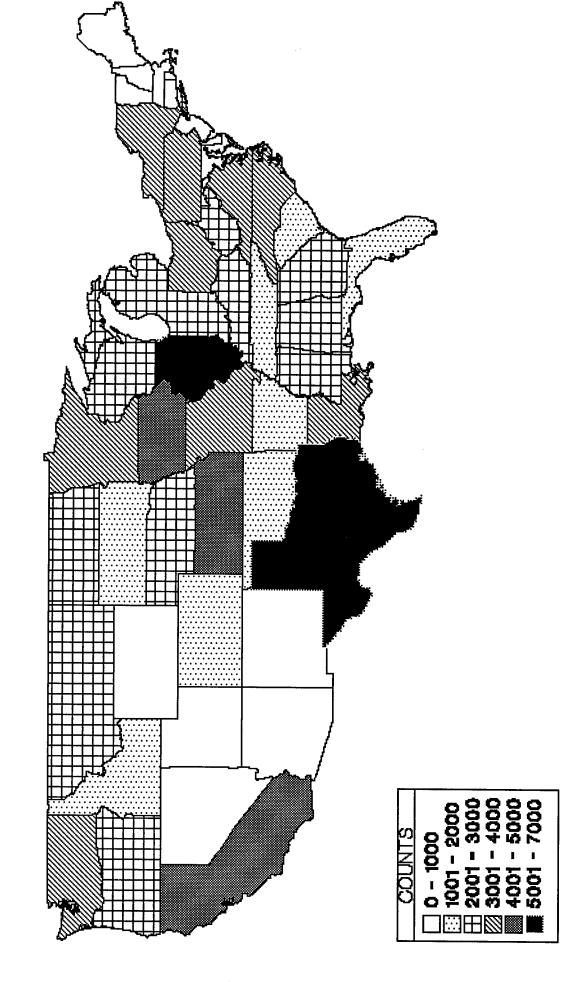


FIGURE 37B. NUMBER OF PRIVATE CROSSINGS BY STATE, 1994



	:	
	•	

(D A T A)

HIGHWAY-RAIL

CROSSING

INVENTORY

TABLE 33. TOTAL PUBLIC AND PRIVATE CROSSINGS BY STATE AND TYPE, 1994

State	Public At Grade	Public RR Under	Public RR Over	Private at Grade	Private Grade Separated	Pedestrian at Grade	Pedestrian Grade Separated	Total
Alabama	4,008	 488	174	2,111	20	 23	2	6,826
Alaska	227	11	6	108	1	8	4	365
Arizona	941	88	83	688	106	6	2	1,914
Arkansas	3,325	182	120	1,523	71	10	8	5,239
California	7,988	933	563	4,895	195	155	87	14,816
Colorado	2,076	205	115	1,448	21	21	8	3,894
Connecticut	370	323	252	261	37	0	31	1,274
Delaware	269	48	57	153	2	2	1	532
Dist Of Columbia	37	30	37	12	0	11		129
Florida	4,077	231	58	1,463	1	68		5,901
Georgia	6,197	546	253	2,790	7	41	5	9,839
Hawaii	6	0	0	. 0	0	0	0	6
Idaho	1,556	92	68	1,422	12	10	3	3,163
Illinois	10,265	924	1,909	5,749	175	308		19,415
Indiana	6,678	449	578	2,902	89	68	13	10,777
Iowa	5,290	472	328	4,298	50	47	' 11	10,496
Kansas	7,912	349	208	4,256	32			12,793
Kentucky	2,639	438	441	2,830	102	54		6,528
Louisiana	3,770	226	117	3,299	20	36	7	7,475
Maine	882	128	78	934	15	11	3	2,051
Maryland	693	314	203	732	24	9	17	1,992
Massachusetts	1,192	795	436	538	52	19	84	3,116
Michigan	5,791	327	403	2,726	22	109	20	9,398
Minnesota	5,218	461	342	3,140	17	53	24	9,255
Mississippi	3,028	223	112	2,090	14	. 14	. 2	5,483
Missouri	4,872	637	411	3,300	72	61	34	9,387
Montana	1,533	137	82	2,057	112		5	3,941
Nebraska	4,058	211	124	2,824	39	14	. 4	7,274
Nevada	288	60	40	258	11	3	0	660
New Hampshire	503	118	52	344	21			1,051
New Jersey	1,862	534	728	594	57	42	83	3,900
New Mexico	815	70	79	595	44			1,607
New York	3,279	1,352	1,096	3,179	192			9,395
North Carolina	4,875	505	287	3,632	17	' 51	19	9,386
North Dakota	4,631	79	83	2,184	16	. 19	4	7,016
Ohio	6,713	1,070	1,082	3,955	198	34	56	13,108
Oklahoma	4,627	257	192	1,779	57	' 18		6,932
Oregon	2,343	290	174	2,878	113			5,900
Pennsylvania	5,599	1,547	1,872	3,450	239	126		13,032
Rhode Island	128	107	38	71	7	' (356
South Carolina	3,111	368	123	1,359	1			4,977
South Dakota	2,137	89	46	1,361	53			3,692
Tennessee	3,371	503	456	1,948	52			6,369
Texas	12,706	861	791	6,559	140	33		21,106
Utah	1,009	117	48	789	2			1,972
Vermont	496	85	83	650	44			1,408
Virginia	2,201	608	456	3,145	116			6,595
Washington	3,018	373	312	3,212	106			7,137
West Virginia	1,972	262	347	2,308	102			5,085
Wisconsin	4,899	428	314	2,984	86	5 108	_	8,861
Wyoming	530	113	46	930	78			1,705
Puerto Rico	24	0	0	2	(0	26
INAL TOTALS	166,035	19,064	16,303	106,715	3,060	2,124	1,254	314,555

Railroad	Public At Grade	Public RR Under	Public RR Over	Private at Grade	Private Grade Separated	Pedestrian at Grade	Pedestrian Grade Separated	Total
Alaska Railroad Corporation	223	11	6	108	1		4	361
Allegheny and Eastern Railroad	106	10	2	82	2	3	1	206
Amtrak (National Railroad Passenger Corpora	185 251	539	489	68 92		2	73 0	1,379
Arkansas & Missouri Railroad Company Arkansas Midland Railroad Company, Incorpor	179	7 6	14 4	92 92		2	0	369 284
Atchison, Topeka & Santa Fe Railway Company	6,648	631	580	3,666	191	51	22	11,789
Atlanta & Saint Andrews Bay Railway Company	137		1	70		1	0	215
Austin & Northwestern Railroad Bangor & Aroostook Railroad	169 165	8 12	7 23	108 385		1 7	0	296 592
Bessemer & Lake Erie Railroad Company	140		49	96		2	0	325
Boston & Maine Corporation	866		204	412		14	36	2,013
Buffalo & Pittsburgh Railroad, Incorporated Burlington Northern Railroad Company	322 19,149		55 1,173	263 12,820		7 266	0 6 5	710 35,380
Camas Prairie Railroad Company	106	•	18	116		1	1	251
Canadian Pacific Railway Company	51		15	180		39	1	304
Cedar Rapids & Iowa City Railway Company Cedar River Railroad Company	96 160		6 2	92 104		3 0	1 0	214 267
Central Kansas Railway, Incorporated	1,129		5	579		3	0	1,736
Central Michigan Railway Company	332		6	187		7	0	552
Central Railroad Company Of Indianapolis	270		0	3		0	0	273
Central Vermont Railway, Incorporated Chehalis Western	193 86		56 11	223 96		3 2	8 0	560 228
Chicago & North Western Transportation Comp	5,672		707	4,184	_	109	51	11,429
Chicago Missouri & Western Railway	141		20	115		7	1	319
Chicago, Central & Pacific Railroad Company Columbus & Greenville Railway Company	888 337		79 1	701 310		15 3	12 0	1,832 659
Consolidated Rail Corporation	13,068		3,469	7,323		172	272	27,943
CSX Transportation	18,465	2,481	1,787	11,087	288	343	109	34,560
Dakota, Minnesota & Eastern Railroad	805		33	554 150		2 1	0	1,453
Dakota, Missouri Valley & Western Railroad, Delaware & Hudson Railway Company	287 311		0 93	159 446		16	0 9	449 986
Delta Southern Railroad Company	92		1	119		0	Ō	213
Denver & Rio Grande Western Railroad Compan	836		67	673		3	4	1,724
Department of Defense - Other Detroit & Mackinac Railway Company	270 359		5 1	234 207		5 10	0 0	518 586
Duluth, Missabe & Iron Range Railway Compan	150		28	131		2	ŏ	340
Eastern Idaho Railroad	353		4	269		0	0	635
Elgin, Joliet & Eastern Railway Company Escanaba & Lake Superior Railroad Company	192 267		28 2	89 162		0 4	0 0	341 439
Florida Central Railroad Company	154		5	55		12	ő	229
Florida East Coast Railway Company	714		6	114		13	0	880
Fox Valley & Western Ltd.	727 224		21 23	449 156		16 2	3 0	1,270 430
Gateway Western Railway Georgia Central Railroad	220		4	87		2	Ö	322
Georgia Southwestern Railroad Division	282		3	166		1	0	472
Grainbelt Corporation	255 1,164		8 178	93 498		0 15	0 11	358 1,974
Grand Trunk Western Railroad Incorporated Great Western Railway Company	85		178	127		0	1	217
Gulf And Mississippi Railroad Corporation	645	53	29	460	1	2	0	1,190
Hillsdale County Railway Company, Incorpora	127		2	68		0 4	0 1	203
Houston Belt & Terminal Railway Company Huron & Eastern Railway	164 207		16 0	43 154		1	0	251 362
Idaho Northern & Pacific Railroad Company	112	. 4	3	182	. 0	1	Ō	302
Illinois Central Railroad Company	2,824		332	1,707		65	23	5,326
Indiana & Ohio Central Railroad, Incorporat Indiana Hi-Rail Corporation	116 236		19 2	87 106		0 4	0 0	248 360
Indiana Rail Road Company	459		38	152			ő	684
Iowa Interstate Railroad	479		43	326		3	1	917
Iowa Northern Railway Company Kankakee, Beaverville & Southern Railroad C	187 164		5 7	119 60			0	319 234
Kansas City Southern Railway Company	1,028		87	492		6	4	1,748
Kansas City Terminal Railway Company	79	48	25	95	0		0	248
Kansas Southwestern Railway	408		2	163		-	0	579
Kiamichi Railroad Company, Incorporated Kyle Railroad Company	234 496		11 4	97 367		0 1	0 0	356 885
Lamoille Valley Railroad Company	84		7	105	_		ŏ	218
Long Island Rail Road	304		105	82			80	873
Louisiana & Arkansas Railway Company Louisiana & Delta Railroad	666 208		34 0	579 173		4	2 0	1,354 382
Maine Department Of Transportation	161		15	87	-	3	0	296
Maryland & Delaware Railroad Company	92	2 1	0	137	' 0	0	1	231
Maryland Dept. Of Transportation	84 75			101 48			0 18	200 290
Mass. Bay Transporatation Authority Mid-Atlantic Railroad Company, Incorporated	135		0	123			0	264

TABLE 34. TOTAL PUBLIC AND PRIVATE CROSSINGS BY RAILROAD AND TYPE, CONT. 1994

Railroad	Public At Grade	Public RR Under	Public RR Over	Private at Grade	Private Grade Separated	Pedestrian at Grade	Pedestrian Grade Separated	Total
Mid-Michigan Railroad Company	 115	4	0	95	0	3	0	217
Midd States Port Authority	404		20		2	1	0	614
Midsouth Railroad Corporation (USE CODE KC	513		25	269		2	0	885
Missouri & Northern Arkansas Railroad Compa	410		24	353	5	1	0	828
Monongahela Railway Company	64	. 14	41	93	0	1	0	213
Montana Rail Link	449		21	684		3	1	1,220
MNVA Railroad, Incorporated	103	2	0		0	1	0	207
Nashville & Eastern Railroad	199		11	151		2	0	380
Nebraska Central Railroad	342		0			. 2	.0	580
New Jersey Transit Rail Operations	347		297			19	45	1,016
New Orleans Lower Coast Railroad, Incorpora	45		0			4	0	229
New Orleans Public Belt Railroad	100		. 8	156		2	0	278
New York City Trans. Authority (MTA)	30		42			0	39	278
New York, Susquehanna & Western Railroad Co	271		9			3	1 45	538 32 457
Norfolk Southern Corporation	17,117		1,644			106 3	1	32,657 234
North Carolina Department Of Transportation	92		3 4	122 106		0	ó	236
Northeast Kansas & Missouri	124 130		5	150	-	0	1	310
Ohio Central Railroad Company	383		9			1	ò	518
Oklahoma Department Of Transportation	122		8			i	ŏ	253
Oklahoma Kansas & Texas Railroad Company Paducah & Louisville Railway Company	259		49		-		ŏ	556
Pittsburgh & Lake Erie Railroad Company	97		35			6	12	317
Prairie Trunk Railway	169		ő			1	0	232
Providence & Worcester Railroad Company	196		49			Ó	6	453
Red River Valley & Western Railroad	761	_	1			0	Ô	1,083
Seminole Gulf Railroad	166		0	31	0	0	0	204
Soo Line Railroad Company	4,271		368	2,732	48	67	26	7,877
South Carolina Central Railroad Company, In	132		1			1	0	201
South Dakota Railroad Authority	321	9	2	282	2	1	0	617
South Kansas & Oklahoma Railroad Company	359	12	15	245	3	2	0	636
South Orient Railroad Company, Ltd.	178		8			1	.0	367
Southeastern Pennsylvania Transportation Au	262		174			10	40	675
Southern Pacific Transportation Company	8,090		557			126	66	14,835
Southern Pacific, Chicago-St. Louis Corpora	269		27			32	1	437
Springfield Terminal Railway Company (Vermo	429		33			0	3	831
St. Louis Southwestern Railway Company	2,025		77			2	0 2	3,027
State Subsidy	247		31			0	1	463 231
Tennessee Southern Railroad Company, Incorp	134		11			0	Ö	220
Terminal Railroad Association Of St. Louis	141		26 1			0	0	539
Texas & Oklahoma Railroad Company	340 239		2			Ö	ŏ	445
Texas Mexican Railway Company	216				_	Ö	ő	355
Texas Northeastern DivisionMid-Michigan R	438		3			6	ő	729
Toledo, Peoria & Western Railway Corporatio	324		5		_		ŏ	570
Tulare Valley Railroad Company Tuscola & Saginaw Bay Railroad Company, Inc	568		7			10	ĭ	851
Twin City & Western Railroad	138		10			0	Ò	259
Union Pacific Railroad Company	16,292	-	902			115	65	29,612
Vermont Railway, Incorporated	95		11				0	285
Washington Central Railroad Company	356		13				0	732
Wheeling & Lake Erie Railway Company	596		161				6	1,329
Wisconsin & Southern Railroad Company	604		14	315	15			989
Wisconsin Central Ltd. (also Railway)	1,985		87		7			3,429
All Other Railroads	16,923		1,291	12,294	276			32,276
NAL TOTALS	166,035		16,303	106,715	3,060	2,124	1,254	314,555
	-							

TABLE 35. TOTAL OF CROSSINGS BY STATE AND LOCATION: URBAN OR RURAL, 1994

State	Urban	Rural	Total
Alabama	1,858	2,150	4,008
Alaska	88	139	227
Arizona	470	471	941
Arkansas	1,289	2,036	3,325
California	5,820	2,168	7,988
Colorado	721	1,355	2,076
Connecticut	239	131	370
Delaware	73	196	269
Dist of Columbia.	37		37
Florida	2,365	1,712	4,077
Georgia	2,198	3,999	6,197
Hawaii		6	6
Idaho	259	1,297	1,556
Illinois	3,913	6,352	10,265
Indiana	2,888	3,790	6,678
Iowa	1,636	3,654	5,290
Kansas	1,398	6,514	7,912
Kentucky	702	1,937	2,639
Louisiana	1,657	2,113	3,770
Maine	236	646	882
Maryland	521	172	693
Massachusetts	843	349	1,192
Michigan	2,362	3,429	5,791
Minnesota	1,421	3,797	5,218
Mississippi	1,137	1,891	3,028
Missouri	1,578	3,294	4,872
Montana	281	1,252	1,533
Nebraska	516	3,542	4,058
Nevada	74	214	288
New Hampshire	221	282	503
New Jersey	1,330	532	1,862
New Mexico	239	576	815
New York	1,515	1,764	3,279
North Carolina	2,012	2,863	4,875
North Dakota	252	4,379	4,631
Ohio	3,168	3,545	6,713
Oklahoma	309	4,318	4,627
Oregon	1,010	1,333	2,343
Pennsylvania	2,918	2,681	5,599
Rhode Island	123	5	128
South Carolina	1,071	2,040	3,111
South Dakota	261	1,876	2,137
Tennessee	1,527	1,844	3,371
Texas	6,700 544	6,006 465	12,706
Utah	165	331	1,009 496
Vermont	929		
Virginia	1,387	1,272	2,201 3,018
Washington	431	1,631 1,541	1,972
West Virginia	1,989	2,910	4,899
Wisconsin	80	450	530
Wyoming Puerto Rico		24	24
Unknown			
Total	64,761	101,274	166,035
	- · , · - ·	· - · / - · ·	,

TABLE 36. TOTAL CROSSINGS BY NUMBER OF MAIN AND OTHER TRACKS, 1994

Other				Number of Mai	n Tracks			
Tracks	0	1	2	3	4	5	>5	Total
0	9	98,852	9,960	286	78	5	4	109,194
1	15,909	21,692	2,722	76	18		1	40,418
2	3,544	6,591	1,054	51	16	1	1	11,258
3	968	1,923	329	28	14			3,262
4	269	601	143	13	7	3	1	1,037
5	116	246	69	4	1	1	1	438
>5	107	246	70	2	3			428
Total	20,922	130,151	14,347	460	137	10	8	166,035

TABLE 37. CROSSINGS BY NUMBER OF TRACKS AND WARNING DEVICE, 1994

	Number of Tracks							
Warning device	1	2	3	4	5	>5	Total	
Gates	13,382	9,999	3,531	1,262	458	418	29,050	
Flashing lights	21,038	5,539	1,805	581	185	177	29,325	
Hwy. signals, wigwags, bells	1,021	411	148	47	20	14	1,661	
Special warning devices	3,316	959	310	125	41	47	4,798	
Stop signs	8,006	2,162	571	179	56	43	11,017	
Crossbucks	62,561	14,938	3,869	1,110	320	252	83,050	
Other signs	365	93	30	14	1	3	506	
No signs or signals	5,072	1,095	303	82	39	37	6,628	
Total	114,761	35,196	10,567	3,400	1,120	991	166,035	

TABLE 38. CROSSINGS BY TRACKS AND TRAFFIC LANES, 1994

Traffic	Number of Tracks						
Lanes	1	2	3	4	5	>5	Total
1	19,933	4,229	726	169	33	42	25,132
2	87,581	28,244	8,941	2,918	980	840	129,504
3	752	330	100	33	9	13	1,237
4	5,621	2,135	<i>7</i> 32	263	94	88	8,933
5	408	119	35	8	2	4	576
>5	466	139	33	9	2	4	653
Total	114.761	35.196	10.567	3.400	1,120	991	166,035

TABLE 39. TOTAL CROSSINGS BY NUMBER OF TRACKS AND STATE, 1994

Number of Tracks

State	1	2	3	4	5	>5	Total
Alabama	2,873	719	284	73	27	32	4,008
Alaska	186	34	6	1			227
Arizona	696	166	60	15	3	1	941
Arkansas	2,270	725	223	63	26	18	3,325
California	5,472	1,579	569	191	90	87	7,988
Colorado	1,445	424	141	40	13	13	2,076
Connecticut	299	59	10		2		370
Delaware	228	30	7	2	2		269
Dist of Columbia.	28	7	ž				37
Florida	2,576	1,051	288	81	40	41	4,077
Georgia	4,599	1,128	307	107	21	35	6,197
Hawaii	6						6
Idaho	1,093	298	110	36	10	9	1,556
Illinois	6,318	2,759	785	254	90	59	10,265
Indiana	4,701	1,509	314	103	31	20	6,678
I owa	3,515	1,146	422	133	36	38	5,290
Kansas	5,430	1,638	541	191	60	52	7,912
Kentucky	1,771	646	152	48	9	13	2,639
Louisiana	2,821	675	186	52	15	21	3,770
Maine	724	123	24	9	1	1	882
Maryland	522	130	22	12	2	5	693
Massachusetts	941	187	41	15	4	4	1,192
Michigan	4,137	1,194	279	104	38	39	5,791
Minnesota	3,699	993	343	117	32	34	5,218
Mississippi	2,089	609	204	78	22	. 26	3,028
Missouri	2,879	1,314	469	131	41	38	4,872
Montana	1,003	351	127	26	12	14	1,533
Nebraska	2,656	900	321	109	40	32	4,058
Nevada	198	64	1 <u>6</u>	4	1	5	288
New Hampshire	427	66	7	2	1		503
New Jersey	1,358	386	83	19	8	8	1,862
New Mexico	570	173	44	17	4	.7	815
New York	2,296	748	161	48	13	13	3,279
North Carolina	3,627	832	267	87	31	31	4,875
North Dakota	3,704	679	194	40	13	1	4,631
Ohio	3,645	2,094	622	231	73 / 9	48	6,713
Oklahoma	2,998	1,067	342	136	48 43	36	4,627
Oregon	1,688	447 1,368	163 358	32 140	12 43	1 37	2,343
Pennsylvania Rhode Island	3,653 86	36	6	140	43		5,599 128
	2,401	561	106	21	13	9	3,111
South Carolina South Dakota	1,685	288	116	35	6	7	2,137
Tennessee	2,265	766	220	74	21	25	3,371
Texas	9,162	2,413	709	262	83	77	12,706
Utah	683	213	71	17	18	7	1,009
Vermont	403	71	16	4		2	496
Virginia	1,456	518	166	44	11	6	2,201
Washington	1,989	627	273	86	22	21	3,018
West Virginia	1,413	410	114	21	5	9	1,972
Wisconsin	3,707	856	235	70	23	8	4,899
Wyoming	351	114	41	19	4	1	530
Puerto Rico	19	5					24
Unknown							
Total	114,761	35,196	10,567	3,400	1,120	991	166,035

TABLE 40. TOTAL CROSSINGS BY TYPE OF HIGHWAY SYSTEM AND STATE, 1994

Highway Ststem

State	01	02	03	04	08	Total
Alabama		184	388	308	3,128	4,008
Alaska	7	10	15	21	174	227
Arizona	10	30	175	74	652	941
Arkansas	2	136	1,008	157	2,022	3,325
California		933	1,020	598	5,437	7,988
Colorado		84	361	98	1,533	2,076
Connecticut		25	102	31	212	370
Delaware		31	5	113	120	269
Dist of Columbia.		4		2	31	37
Florida	1	278	739	133	2,926	4,077
Georgia		379	167	776	4,875	6,197
Kawaii					6	6
Idaho		47	110	145	1,254	1,556
Illinois	1	621	1,386	782	7,475	10,265
Indiana		240	428	1,140	4,870	6,678
Iowa	3	290	710	484	3,803	5,290
Kansas		306	398	1,069	6,139	7,912
Kentucky	2	78	231	243	2,085	2,639
Louisiana	5	144	390	286	2,945	3,770
Maine		72	22	98	690	882
Maryland		15	21	12	645	693
Massachusetts		116	316	121	639	1,192
Michigan	9	234	665	895	3,988	5,791
Minnesota	1	184	114	829	4,090	5,218
Mississippi		137	426	307	2,158	3,028
Missouri	3	93	229	584	3,963	4,872
Montana		59	70	107	1,297	1,533
Nebraska		200	231	479	3,148	4,058
Nevada		19	14	22	233	288
New Hampshire		7	148	43	305	503
New Jersey	•••	77	178	172	1,435	1,862
New Mexico		20	61	55	679	815
New York		197	27	562	2,493	3,279
North Carolina		111	207	364	4,193	4,875
North Dakota	3	178	88	474	3,888	4,631
Ohio		272	983	615	4,843	6,713
Oklahoma		143	299	389	3,796	4,627
Oregon		133	274	269	1,667	2,343
Pennsylvania	129	552	1,029	79 5	3,094	5,599
Rhode Island		6	44	14	64	128
South Carolina	1	188	176	572	2,174	3,111
South Dakota		98	90	252	1,697	2,137
Tennessee		104	467	120	2,680	3,371
Texas	82	100	153	34	12,337	12,706
Utah	1	15	5	134	854	1,009
Vermont		36	28	63	369	496
Virginia		93	311	365	1,432	2,201
Washington		107	172	414	2,325	3,018
West Virginia		122	44	345	1,461	1,972
Wisconsin		314	767	410	3,408	4,899
Wyoming		27	32	38	433	530
Puerto Rico		6		2	16	24
Unknown						
Total	260	7,855	15,324	16,415	126,181	166,035

HIGHWAY SYSTEM CODES

CODE SYSTEM	CODE SYSTEM
01 Interstate	02 Federal-aid

Interstate Federal-aid urban 03

⁰⁸ Non-federal-aid

Federal-aid primary Federal-air secondary 02 04

TABLE 41. TOTAL CROSSINGS BY HIGHWAY SYSTEM GROUP AND STATE, 1994

State	On-State	Off-State	Total
Alabama	274	3,734	4,008
Alaska	81	146	227
Arizona	52	889	941
Arkansas	551	2,774	3,325
California	325	7,663	7,988
Colorado	234	1,842	2,076
Connecticut	83	287	370
Delaware	238	31	269
Dist of Columbia.	36	1	37
Florida	458	3,619	4,077
Georgia	722	5,475	6,197
Hawaii		6	6
Idaho	119	1,437	1,556
Illinois	1,286	8,979	10,265
Indiana	606	6,072	6,678
Iowa	295	4,995	5,290
Kansas	418	7,494	7,912
Kentucky	766	1,873	2,639
Louisiana	847	2,923	3,770
Maine	171	711	882
Maryland	114	579	693
Massachusetts	45	1,147	1,192
Michigan	336	5,455	
_	283	4,935	5,791 5,218
Minnesota	263 373	2,655	
Mississippi	705		3,028
Missouri		4,167	4,872
Montana	234	1,299	1,533
Nebraska	308	3,750	4,058
Nevada	63	225	288
New Hampshire	112	391	503
New Jersey	176	1,686	1,862
New Mexico	179	636	815
New York	344	2,935	3,279
North Carolina	3,119	1,756	4,875
North Dakota	219	4,412	4,631
Ohio	903	5,810	6,713
Oklahoma	360	4,267	4,627
Oregon	142	2,201	2,343
Pennsylvania	1,790	3,809	5,599
Rhode Island	46	82	128
South Carolina	2,217	894	3,111
South Dakota	146	1,991	2,137
Tennessee	298	3,073	3,371
Texas	2,071	10,635	12,706
Utah	109	900	1,009
Vermont	111	385	496
Virginia	1,449	752	2,201
Washington	167	2,851	3,018
West Virginia	1,204	768	1,972
Wisconsin	383	4,516	4,899
Wyoming	73	457	530
Puerto Rico	19	5	24
Unknown			
Total	25,660	140,375	166,035

TABLE 42. CROSSINGS BY FUNCTIONAL CLASSIFICATION OF ROAD, 1994

Rural	Crossings	Urban	Crossings
Interstate	36	Interstate	144
Other principal arterial	1,193	Other freeway/expressway	372
Minor arterial	3,801	Other principal arterial	5,846
Major collector	11,290	Minor arterial	10,476
Minor collector	9,491	Collector	10,864
Local	75,463	Local	37,059
Total	101,274	Total	64,761

TABLE 43. TOTAL CROSSINGS BY NUMBER OF TRAFFIC LANES AND STATE, 1994

State	1	2	3	4	5	>5	Total
Alabama	785	2,991	23	190	8	11	4,008
Alaska	12	197	2	14	2		227
Arizona	12	762	14	107	23	23	941
Arkansas	726	2,512	16	66	4	1	3,325
California	411	5,503	176	1,551	145	202	7,988
Colorado	172	1,718	22	148	10	6	2,076
	5	330	16	17	2		370
Connecticut	4	247	4	13		1	269
Delaware	4	30	1	2	1	ż	37
Dist of Columbia.	1/1		82	367	32	74	4,077
Florida	161	3,361	29	211	12	8	6,197
Georgia	1,190	4,747		211			6,197
Hawaii		6		51	1	2	1,556
Idaho	374	1,121	7		15	22	10 245
Illinois	2,058	7,471	58	641			10,265
Indiana	892	5,419	53 74	283	18	13	6,678
Iowa	621	4,449	36	178	5	1	5,290
Kansas	1,893	5,710	15	290	2	2	7,912
Kentucky	829	1,762	6	42	47		2,639
Louisiana	585	2,952	19	188	13	13	3,770
Maine	<u>44</u>	820	2	15	1		882
Maryland	73	561	8	44	3	4	693
Massachusetts	43	1,084	_8	56	1		1,192
Michigan	349	4,828	74	456	5 <u>1</u>	33	5,791
Minnesota	869	4,076	17	252	3	<u>1</u>	5,218
Mississippi	381	2,535	9	98	2	3	3,028
Missouri	1,213	3,521	11	119	5	3	4,872
Montana	148	1,357	2	23	2	1	1,533
Nebraska	874	3,125	6	52	1		4,058
Nevada	78	183	1	25		1	288
New Hampshire	32	449	2	17	2	1	503
New Jersey	87	1,624	15	129	<u>1</u>	6	1,862
New Mexico	265	506	1	36	3	4	815
New York	307	2,838	19	110	2	3	3,279
North Carolina	270	4,362	36	185	12	10	4,875
North Dakota	1,041	3,565	1	23	1 .		4,631
Ohio	813	5,578	49	262	5	6	6,713
Oklahoma	890	3,470	5	255	4	3	4,627
Oregon	271	1,918	47	81	24	2	2,343
Pennsylvania	859	4,416	119	177	2	26	5,599
Rhode Island	2	102		24			128
South Carolina	366	2,523	23	169	20	10	3,111
South Dakota	641	1,450		39	4	3	2,137
Tennessee	444	2,706	31	152	31	7	3,371
Texas	2,222	9,167	67	1,085	58	107	12,706
Utah	188	745	1	71	1	3	1,009
Vermont	108	376	5	7			496
Virginia	29	2,033	24	94	11	10	2,201
Washington	266	2,419	55	239	31	8	3,018
West Virginia	945	1,009	. 7	9	1	1	1,972
Wisconsin	174	4,455	11	242	1	16	4,899
Wyoming	108	392	2	28			530
Puerto Rico	1	23					24
Unknown							
Total	25,132	129,504	1,237	8,933	576	653	166,035

TABLE 44. CROSSINGS BY NUMBER OF TRAFFIC LANES AND WARNING DEVICE, 1994

	Number of Traffic Lanes									
Warning device	1	2	3	4	5	>5	Total			
Gates	764	23,725	470	3,491	289	311	29,050			
Flashing lights	758	24,743	352	3,061	202	209	29,325			
Hwy. signals, wigwags, bells	132	1,248	45	193	15	28	1,661			
Special warning devices	319	3,944	107	375	27	26	4,798			
Stop signs	1,819	9,034	29	127	2	6	11,017			
Crossbucks	19,604	61,787	183	1,385	32	59	83,050			
Other signs	125	362	2	15		2	506			
No signs or signals	1,611	4,661	49	286	9	12	6,628			
Total	25,132	129,504	1,237	8,933	576	653	166,035			

TABLE 45. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND STATE, 1994

Warning Device Category

			Hwy.Sig.					No Signs	
		Flashing	Wigwags		Stop	Cross-	Other	or	
State	Gates	Lights	Bells	Special	Signs	Bucks	Signs	Signals	Total
Alabama	292	640	20	47	1,007	1,696	7	299	4,008
Alaska	16	61		7	29	105		9	227
Arizona	349	71	4	57	98	336		26	941
Arkansas	305	460	25	78	168	2,153		136	3,325
California	3,116	1,038	307	114	341	2,882	15	175	7,988
Colorado	333	276	42	27	233	1,080	3	82	2,076
Connecticut	98	141	5	24	50	33		19	370
Delaware	44	148		28	3	33		13	269
Dist of Columbia.		4		4	10	15	1	3	37
Florida	2,065	682	14	97	162	983	7	67	4,077
Georgia	1,561	348	19	163	1,089	2,762	6	249	6,197
Hawaii					1	5			6
Idaho	99	200	9	8	519	676	1	44	1,556
Illinois	2,104	2,630	126	228	81	4,710	3	383	10,265
Indiana	1,152	1,674	101	176	732	2,707	8	128	6,678
Iowa	599	998	31	46	431	3,108	1	76	5,290
Kansas	857	696	60	199	238	5,715	2	145	7,912
Kentucky	365	814	14	57	50	1,177		162	2,639
Louisiana	432	707	27	44	271	1,995	14	280	3,770
Maine	71	388		80	18	325			882
Maryland	98 107	204	21	30	34	264	6	36	693
Massachusetts	197	462	30	212	5	232	3	51 70	1,192
Michigan	809	1,464	39	140	866	2,390	4	79	5,791
Minnesota	581	619	9	25 53	678	3,196	2	108	5,218
Mississippi	134	461	13 69	94	847	1,245	11	264	3,028
Missouri	477 160	1,003 188	1	13	137 83	2,855 1,058	1 1	236 29	4,872 1,533
Montana Nebraska	568	305	12	15	281	2,759		118	4,058
Nevada	108	25	1	4	6	139		5	288
New Hampshire	31	146	11	108	50	133	7	17	503
New Jersey	402	659	17	236	18	407	2	121	1,862
New Mexico	193	95	5	9	13	474	5	21	815
New York	1,375	646	74	249	17	822	21	75	3,279
North Carolina	1,133	728	18	211	56	2,384	9	336	4,875
North Dakota	337	123	1	1	78	3,921		170	4,631
Ohio	1,498	1,452	44	78	183	3,354	5	99	6,713
Oklahoma	395	734	24	114	114	3,137	8	101	4,627
Oregon	548	141	46	91	453	894	44	126	2,343
Pennsylvania	744	1,265	109	653	141	1,946	279	462	5,599
Rhode Island	15	33	19	23	7	9		22	128
South Carolina	579	528		166	399	1,413	1	25	3,111
South Dakota	_18	173	2		28	1,840		76	2,137
Tennessee	307	639	19	198	178	1,634	2	394	3,371
Texas	2,393	1,982	76	107	226	7,309	14	599	12,706
Utah	166	168	5	86	61 25	442	5	76	1,009
Vermont	27 660	196 520	3 16	44	25 9	199 784	,	2	496
Virginia				116	-	786 1 452	4	90	2,201
Washington West Virginia	458 211	430 449	28 5	52 31	117 36	1,652 1,025	2 2	279 213	3,018 1 072
Wisconsin	464	1,384	135	136	308			81	1,972
Wyoming	102	126	4	130	32	2,391 244		21	4,899 530
Puerto Rico	4	120	1	18					24
Unknown									
Total	29,050	29,325	1,661	4,798	11,017	83,050	506	6,628	166,035
	•	•	•	•	•	• • •		,	

TABLE 46. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND RAILROAD, 1994

	Railroad	Gates	Flashing Lights	Hwy. Sig. Wigwags Bells	Special	Stop Signs	Cross- Bucks	Other Signs	No Signs Or Signals	Total
ARR	Alaska Railroad Corporation	16	61	0	7	29	102	0	8	223
ALY	Allegheny and Eastern Railroad	7		1	0	9		4	2	106
ATK	Amtrak (National Railroad Passenger Corpora	144		0	5	6		4	5	185
AM AKMD	Arkansas & Missouri Railroad Company Arkansas Midland Railroad Company, Incorpor	5 2		4 5	3 3	42 2		0	10 13	251 179
ATSF	Atchison, Topeka & Santa Fe Railway Company	2,053		73	281	82		5	24	6,648
ASAB	Atlanta & Saint Andrews Bay Railway Company	21		0	0	24	54	3		137
AUNW	Austin & Northwestern Railroad	29		1	0	2		0	13	169
BAR Ble	Bangor & Aroostook Railroad Bessemer & Lake Erie Railroad Company	4 36		0	8 2	11 0		0	0 2	165 140
BM	Boston & Maine Corporation	173		17	174	27		4	48	866
BPRR	Buffalo & Pittsburgh Railroad, Incorporated	37		4	11	4	181	1	6	322
BN	Burlington Northern Railroad Company	2,667	2,482 7	83 0	216 0	1,107 11	12,127 77	14 0	453 6	19,149 106
CSP CP	Camas Prairie Railroad Company Canadian Pacific Railway Company	1	31	0	1	1	17	0	0	51
CIC	Cedar Rapids & Iowa City Railway Company	i	35	Ŏ	7	1	46	Ö	6	96
CEDR	Cedar River Railroad Company	1	23	1	.0	7		0	0	160
CKRY	Central Kansas Railway, Incorporated	26		4 5	67	14		0	1	1,129
CMGN CERA	Central Michigan Railway Company Central Railroad Company Of Indianapolis	13 18	120 82	6	4	53 9		1	4 28	332 270
CV	Central Vermont Railway, Incorporated	25	108	1	1	15	40	1	2	193
CHWE	Chehalis Western	1	33	1	0	2		0	0	86
CNW	Chicago & North Western Transportation Comp	713	•	119	62	249	•	1	164	5,672
CMNW CC	Chicago Missouri & Western Railway Chicago, Central & Pacific Railroad Company	2 69		12 11	0 31	1 41	88 453	0	6 24	141 888
CAGY	Columbus & Greenville Railway Company	3		Ö	5	130		ŏ	7	337
CR	Consolidated Rail Corporation	2,907		174	1,025	494	3,995	262	730	13,068
CSX	CSX Transportation	4,559	· · · · · · · · · · · · · · · · · · ·	82	539	1,487	6,995	20	828	18,465
DME DMV₩	Dakota, Minnesota & Eastern Railroad Dakota, Missouri Valley & Western Railroad,	14 1	107 6	3 1	0	48 5	603 266	0	30 7	805 287
DH	Delaware & Hudson Railway Company	143	83	3	i	3		5	2	311
DSRR	Delta Southern Railroad Company	0	-	0	0	_0		0	2	92
DRGW	Denver & Rio Grande Western Railroad Compan	133 25	160 54	5 1	8 50	71 5	418 111	3 15	38 9	836 270
DOD DM	Department of Defense - Other Detroit & Mackinac Railway Company	ر <u>ء</u> 0		3	0	91	208	0	0	359
DMIR	Duluth, Missabe & Iron Range Railway Compan	9		Ō	2	31	87	2	Ō	150
EIRR	Eastern Idaho Railroad	22		1	0	131	147	0	6	353
EJE ELS	Elgin, Joliet & Eastern Railway Company Escanaba & Lake Superior Railroad Company	79 4	63 64	2 1	10 45	4	34 146	0 1	0 2	192 267
FCEN	Florida Central Railroad Company	44	17	Ó	1	6	85	ó	1	154
FEC	Florida East Coast Railway Company	599		0	27	3		0	9	714
FVW	Fox Valley & Western Ltd.	36	255	23	14	60	333	0	6	727
GWWR GC	Gateway Western Railway Georgia Central Railroad	7 36	44 11	20 3	0	7 37	142 133	0	4 0	224 220
GSWR	Georgia Southwestern Railroad Division	30	16	4	Ö	35	186	Ö	11	282
GNBC	Grainbelt Corporation	0	21	0	0	0	233	0	1	255
GTW	Grand Trunk Western Railroad Incorporated	386	263 5	4 4	46 0	219	243 67	0	3 1	1,164
GWR GSMR	Great Western Railway Company Gulf And Mississippi Railroad Corporation	2 1	37	0	1	6 90	465	2	49	85 645
HCRC	Hillsdale County Railway Company, Incorpora	ó	25	1	Ó	6	95	ō	Ó	127
HBT	Houston Belt & Terminal Railway Company	61	28	1	0	2	57	0	15	164
HESR	Huron & Eastern Railway Idaho Northern & Pacific Railroad Company	2	18 7	0 1	0	14 50	170 52	0	3 2	207 112
INPR IC	Illinois Central Railroad Company	361	613	16	66	433	1,144	3	188	2,824
IOCR	Indiana & Ohio Central Railroad, Incorporat	11	21	Ô	0	0	84	Ō	0	116
IHRC	Indiana Hi-Rail Corporation	11	47	9	1	10	153	1	4	236
INRD IAIS	Indiana Rail Road Company Iowa Interstate Railroad	11 97	111 103	28 8	0	75 75	223 196	0	11 0	459 479
IAIS	Iowa Northern Railway Company	6	45	1	0	32	98	0	5	187
KBSR	Kankakee, Beaverville & Southern Railroad C	5	37	5	Ŏ	5	112	Ŏ	Ō	164
KCS	Kansas City Southern Railway Company	130		2	1	12	639	4	64	1,028
KCT	Kansas City Terminal Railway Company	2 15	17 36	2 0	0	0	50 353	1	7 4	79 408
KSW Krr	Kansas Southwestern Railway Kiamichi Railroad Company, Incorporated	1	22	0	3	16	190	0	2	234
KYLE	Kyle Railroad Company	ż	25	Ō	2	28	429	0	10	496
LVRC	Lamoille Valley Railroad Company	1	22	0	0	0	61	0	0	84
LI	Long Island Rail Road Louisiana & Arkansas Railway Company	298 59	0 136	0	0	0 36	6 412	0	0 2 3	304 666
LA LDRR	Louisiana & Arkansas kailway Company Louisiana & Delta Railroad	22	136	1	0	36 26	123	0	23 27	208
MDTT	Maine Department Of Transportation	6	72	0	18	2	63	0	0	161
MDDE	Maryland & Delaware Railroad Company	0	17	0	0	1	66	1	7	92
MDT	Maryland Dept. Of Transportation	3	19	7	7	11	30	0	7	84

TABLE 46. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND RAILROAD, CONT., 1994

	Rai l road (Flashing Lights	Hwy. Sig. Wigwags Bells	Special	Stop Signs	Cross- Bucks	Other Signs	No Signs Or Signals	Total
XMBT	Mass. Bay Transporatation Authority	7	51	1	14	0	2	0	0	75
MRR	Mid-Atlantic Railroad Company, Incorporated	6	9	ò	3	13	104	ŏ	ŏ	135
MMRR	Mid-Michigan Railroad Company	4	24	4	Ō	17	65	Ö	1	115
MSPA	Midd States Port Authority	14	31	1	0	12	340	0	6	404
MSRC	Midsouth Railroad Corporation (USE CODE KC	8	90	2	1	128	222	0	62	513
MNA	Missouri & Northern Arkansas Railroad Compa	26	87	. 5	13	12	256	0	11	410
MGA	Monongahela Railway Company	0	13	0	0	0	50	0	1	64
MRL	Montana Rail Link	52	68	1	0	41	280	0		449
MNVA	MNVA Railroad, Incorporated	0	2	0	0	22	76	0	_	103
NERR	Nashville & Eastern Railroad	0	31	0	3	5	133	0		199
NCRC	Nebraska Central Railroad	6	23	0	0	37	265	0		342
NJTR	New Jersey Transit Rail Operations	211 0	88 6	1	10 1	1 15	29 16	0	-	347 45
NOLR Nopb	New Orleans Lower Coast Railroad, Incorpora	5	19	0	1	4	27	8		100
XMTA	New Orleans Public Belt Railroad New York City Trans. Authority (MTA)	22	7	0	1	ō	0	0		30
NYSW	New York, Susquehanna & Western Railroad Co	93	85	14	13	10	42	ŏ	_	271
NS	Norfolk Southern Corporation	3,455	2,974	79	511	1,515	7,672	14		17,117
DTNC	North Carolina Department Of Transportation	4	12	Ō	8	5	55	0	_	92
NEKM	Northeast Kansas & Missouri	12	13	0	0	6	93	0	0	124
OHCR	Ohio Central Railroad Company	21	21	1	0	2	85	0	0	130
ODOT	Oklahoma Department Of Transportation	8	50	0	0	6	280	0	39	383
OKKT	Oklahoma Kansas & Texas Railroad Company	9	22	0	0	2		0		122
PAL	Paducah & Louisville Railway Company	19	103	4	0	10		0	_	259
PLE	Pittsburgh & Lake Erie Railroad Company	14	8	1	3	. 4		0		97
PARY	Prairie Trunk Railway	1	19	0	0	. 0		0	_	169
PW	Providence & Worcester Railroad Company	31	90 21	7 0	20 0	9 5		0		196 761
RRVW	Red River Valley & Western Railroad	24 58	34	0	1	19		0		166
SGLR SOO	Seminole Gulf Railroad Soo Line Railroad Company	496	592	36	58	354		0		4,271
SCRF	South Carolina Central Railroad Company, In	4	23	0	17	29		0		132
SDRR	South Dakota Railroad Authority	2	10	Ŏ	0	3		Ō		321
SKOL	South Kansas & Oklahoma Railroad Company	20	61	13	Ö	8		Ō		359
SO	South Orient Railroad Company, Ltd.	5	34	1	0	1	137	0	0	178
SEPA	Southeastern Pennsylvania Transportation Au	50	77	21	18	17	32	2	45	262
SP	Southern Pacific Transportation Company	2,764	960	250	34	403	3,287	13		8,090
SSWN	Southern Pacific, Chicago-St. Louis Corpora	108	84	2	11	0		0		269
ST	Springfield Terminal Railway Company (Vermo	65	188	1	41	18		0		429
SSW	St. Louis Southwestern Railway Company	269	264	8	10	126	•	0		2,025
SUB	State Subsidy	5	88	22	16	11		10		247
TSRR	Tennessee Southern Railroad Company, Incorp	,2	20	1	0	25		0		134
TRRA	Terminal Railroad Association Of St. Louis	45 3	14 27	0	56 0	3 0		0	_	141 340
TXOR	Texas & Oklahoma Railroad Company	1	62	0	11	6		0		239
TM TNER	Texas Mexican Railway Company Texas Northeastern DivisionMid-Michigan R	5	37	1	Ö	0		0		216
TPW	Toledo, Peoria & Western Railway Corporatio	7	125	4	Ŏ	2	–	Ŏ	-	438
TVRR	Tulare Valley Railroad Company	70	39	19	Ŏ	5		ĭ	_	324
TSBY	Tuscola & Saginaw Bay Railroad Company, Inc	3	80	3	1	52		2		568
TCWR	Twin City & Western Railroad	17	20	Ō	0	21		0		138
UP	Union Pacific Railroad Company	2,865	2,419	108	200	867	8,972	25	836	16,292
VTR	Vermont Railway, Incorporated	2	40	0	6	10	37	0	0	95
WCRC	Washington Central Railroad Company	26	43	4	0	9		0		356
WE	Wheeling & Lake Erie Railway Company	48	167	3	2	25		0	•	596
WSOR	Wisconsin & Southern Railroad Company	5	167	21	8	20		0		604
WC	Wisconsin Central Ltd. (also Railway)	153	537	16	24	140	•	0		1,985
FINAL 1	All Other Railroads FOTALS	1,687 29,050		242 1,661	926 4,798	1,412 11,017		73 506		16,923 166,035

TABLE 47. TOTAL CROSSINGS BY PAVEMENT MARKINGS AND STATE, 1994

	Stop RR X-ingNone					
State	Lines	Symbol	Both	Paved	Unpaved	Total
Alabama	36	132	201	2,713	926	4,008
Alaska	9	11	55	65	87	227
Arizona	23	24	410	249	235	941
Arkansas	56	114	322	1,667	1,166	3,325
California	999	201	4,718	1,770	300	7,988
Colorado	21	38	261	999	7 57	2,076
Connecticut	12	13	254	90	1	370
Delaware	6	36	120	100	7	269
Dist of Columbia.			23	14		37
Florida	274	370	1,849	1,147	437	4,077
Georgia	64	102	2,807	1,655	1,569	6,197
Hawaii	2			4		6
Idaho	15	5	262	694	580	1,556
Illinois	80	164	1,267	4,322	4,432	10,265
Indiana	69	271	1,236	4,218	884	6,678
Iowa	53	150	530	2,034	2,523	5,290
Kansas	7	21	888	2,072	4,924	7,912
Kentucky	44	328	<i>7</i> 34	903	630	2,639
Louisiana	44	209	560	2,027	930	3,770
Maine	3	3	569	228	79	882
Maryland	10	25	254	360	44	693
Massachusetts	55	45	125	933	34	1,192
Michigan	70	277	1,363	2,652	1,429	5,791
Minnesota	126	180	463	1,853	2,596	5,218
Mississippi	27	45	483	1,616	857	3,028
Missouri	65	110	558	2,070	2,069	4,872
Montana	_5	17	158	396	957	1,533
Nebraska	35	274	189	974	2,586	4,058
Nevada	6	4	115	64	99	288
New Hampshire	10	28	59 350	354 1 353	52	503
New Jersey	39 5	232 29	250 44	1,252 339	89 398	1,862 815
New Mexico	125	216	435	2,225	278	3,279
New York North Carolina	46	33	3,615	570	611	4,875
North Dakota	17	29	137	595	3,853	4,631
Ohio	442	600	3,292	1,923	456	6,713
Oklahoma	31	96	194	2,222	2,084	4,627
Oregon	353	905	142	503	440	2,343
Pennsylvania	66	351	156	4,416	610	5,599
Rhode Island			80	48		128
South Carolina	91	112	1,110	1,353	445	3,111
South Dakota	30	12	132	540	1,423	2,137
Tennessee	20	115	919	1,787	530	3,371
Texas	5	10	6,346	3,107	3,238	12,706
Utah	21	31	182	546	229	1,009
Vermont	36	10	88	214	148	496
Virginia	91	128	982	764	236	2,201
Washington	127	72	567	1,646	606	3,018
West Virginia	18	12	87	1,212	643	1,972
Wisconsin	77	34	714	3,551	523	4,899
Wyoming	7	21	53	156	293	530
Puerto Rico	3	7		12	2	24
Unknown					40.705	
Total	3,876	6,252	40,358	67,224	48,325	166,035

NOTE: The Manual On Uniform Traffic Control Devices does not require pavement markings at all crossings.

TABLE 48. CROSSINGS BY RAILROAD ADVANCE WARNING AND STATE, 1994

State	Yes	No	Total
Alabama	853	3,155	4,008
Alaska	164	63	227
Arizona	5 <i>7</i> 3	368	941
Arkansas	913	2,412	3,325
California	6,425	1,563	7,988
Colorado	1,108	968	2,076
Connecticut	326	44	370
Delaware	229	40	269
Dist of Columbia.	22	15	37
Florida	2,553	1,524	4,077
Georgia	3,190	3,007	6,197
Hawaii	1	5	6
Idaho	1,021	535	1,556
Illinois	5,317	4,948	10,265
Indiana	5,653	1,025	6,678
Iowa	3,614	1,676	5,290
Kansas	4,265	3,647	7,912
Kentucky	1,527	1,112	2,639
Louisiana	2,444	1,326	3,770
Maine	870	1,320	882
Maryland	447	246	693
	882	310	1,192
Massachusetts	4,727	1,064	
Michigan			5,791
Minnesota	3,396 747	1,822	5,218
Mississippi		2,281	3,028
Missouri	1,444	3,428	4,872
Montana	971	562	1,533
Nebraska	2,893	1,165	4,058
Nevada	224	64	288
New Hampshire	297	206	503
New Jersey	963	899	1,862
New Mexico	177	638	815
New York	2,593	686	3,279
North Carolina	3,775	1,100	4,875
North Dakota	1,703	2,928	4,631
Ohio	4,525	2,188	6,713
Oklahoma	1,518	3,109	4,627
Oregon	1,016	1,327	2,343
Pennsylvania	2,069	3,530	5,599
Rhode Island	81	47	128
South Carolina	2,177	934	3,111
South Dakota	1,407	73 0	2,137
Tennessee	2,088	1,283	3,371
Texas	10,011	2,695	12,706
Utah	590	419	1,009
Vermont	409	87	496
Virginia	1,673	528	2,201
Washington	2,188	830	3,018
West Virginia	463	1,509	1,972
Wisconsin	3,244	1,655	4,899
Wyoming	290	240	530
Puerto Rico	17	7	24
Unknown			
Total	100,073	65,962	166,035
. J. Cal	100,013	05,702	100,033

NOTE: The Manual On Uniform Traffic Control Devices does not require pavement markings at all crossings.

TABLE 49. CROSSINGS MEETING THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' STANDARD FOR CROSSBUCKS BY STATE, 1994

	Active	X-buck meet	standards	
State	Warning	Yes	No	Total
Alabama	952	1,866	1,190	4,008
Alaska	77	113	37	227
Arizona	424	405	112	941
Arkansas	790	1,796	739	3,325
California	4,461	1,614	1,913	7,988
Colorado	651	1,057	368	2,076
Connecticut	244	88	38	370
Delaware	192	53	24	269
Dist of Columbia.	4	20	13	37
Florida	2,761	9 50	366	4,077
Georgia	1,928	3,590	679	6,197
Hawaii		4	2	6
Idaho	308	908	340	1,556
Illinois	4,860	4,214	1,191	10,265
Indiana	2,927	3,160	591	6,678
Iowa	1,628	2,810	852	5,290
Kansas	1,613	2,854	3,445	7,912
Kentucky	1,193	1,125	321	2,639
Louisiana	1,166	2,043	561	3,770
Maine	459	410	13	882
Maryland	323	195	175	693
Massachusetts	689	296	207	1,192
Michigan	2,312	3,130	349	5,791
Minnesota	1,209	3,690	319	5,218
Mississippi	608	1,524	896	3,028
Missouri	1,549	1,779	1,544	4,872
Montana	349	951	233	1,533
Nebraska	885	2,783	390	4,058
Nevada	134	91	63	288
New Hampshire	188	210	105	503
New Jersey	1,078	324	460	1,862
New Mexico	293	295	227	815
New York	2,095	838	346	3,279
North Carolina	1,879	1,700	1,296	4,875
North Dakota	461	2,854	1,316	4,631
Ohio	2,994	2,569	1,150	6,713
Oklahoma	1,153	1,968	1,506	4,627
Oregon	735	1,101	507	2,343
Pennsylvania	2,118	1,259	2,222	5,599
Rhode Island	67	2	59	128
South Carolina	1,107	1,858	146	3,111
South Dakota	193	1,762	182	2,137
Tennessee	965	1,149	1,257	3,371
Texas	4,451	3,797	4,458	12,706
Utah	339	471	199	1,009
Vermont	226	254	16	496
Virginia	1,196	687	318	2,201
Washington	916	1,210	892	3,018
West Virginia	665	706	601	1,972
Wisconsin	1,983	2,471	445	4,899
Wyoming	232	186	112	530
Puerto Rico	6	6	12	24
Unknown				
Total	60,036	71,196	34,803	166,035
	•	•	-	•

NOTE: The manual requires two reflectorized crossbucks to be placed at all crossings.

For crossings with active warning devices, a determination has not been made as to whether crossbucks which are part of the device meet the MUTCD standard.

TABLE 50. TOTAL CROSSINGS BY TOTAL NUMBER OF TRAINS PER DAY, 1994

Trains	Crossings
<1	25,356 71,273
1-5 6-10	28,329
11-15	12,173
16-20	10,568
21-25	6,041
26-30	3,984
31-35	2,079
36-40	1,378
41-45	959
46-50	937
51-55	927
56-60	708
61-65 66-70	294 146
00-70 71-75	219
76-80	177
81-85	51
86-90	23
91-95	121
96-100	56
>100	236
Total	166,035

TABLE 51. TOTAL CROSSINGS BY NUMBER OF THRU TRAINS AND SWITCHING TRAINS PER DAY, 1994

Switching		Through Trains								
Trains	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	Total	
<1	25.356	25,496	11,039	11,415	4,974	4,691	2,609	4,078	89,658	
1-2	17,416	9,222	5,881	6,695	2,796	2,488	695	2,276	47,469	
2-3	5,405	1,723	2,152	2,990	1,446	923	376	1,320	16,335	
6-10	2,439	723	. 761	1,386	937	936	380	816	8,378	
11-15	426	109	118	249	121	58	81	849	2,011	
16-20	432	95	93	134	178	79	94	141	1,246	
21-25	105	37	24	36	37	16	24	57	336	
>25	187	62	42	79	70	42	34	86	602	
Total	51,766	37,467	20,110	22,984	10,559	9,233	4,293	9,623	166,035	

TABLE 52. TOTAL CROSSINGS BY NUMBER OF DAY AND NIGHT TRAINS PER DAY, 1994

Day	Day Night Trains										
Trains	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	Total		
<1	25,356	6,811	933	159	7	7	4	7	33,284		
1-2	26,423	25,884	2,967	399	20	10	2	3	55,708		
2-3	4,445	9,293	15,646	1,824	155	33	37	2	31,435		
6-10	1,378	2,167	6,152	13,875	1,705	94	42	14	25,427		
11-15	184	238	743	3,720	4,909	581	22	19	10,416		
16-20	80	39	294	607	1,237	1,776	289	45	4,367		
21-25	40	26	28	94	358	218	982	172	1,918		
>25	73	11	54	148	267	286	768	1,873	3,480		
Total	57,979	44,469	26,817	20,826	8,658	3,005	2,146	2,135	166,035		

TABLE 53. CROSSINGS BY NUMBER OF TRAINS PER DAY AND WARNING DEVICE, 1994

Warning device	Number of Trains Per Day										
	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	Total		
Gates	1,043	2,662	3,080	5,407	3,518	4,132	2,841	6,367	29,050		
Flashing lights	3,321	7,110	5,267	6,552	2,653	2,018	925	1,479	29,325		
Hwy. signals, wigwags, bells	217	414	304	295	143	102	38	148	1,661		
Special warning devices	1.881	1,566	561	405	134	106	35	110	4,798		
Stop signs	939	2,911	2,130	2,246	760	818	377	836	11,017		
Crossbucks	15,471	27,591	14,394	12,708	4,738	3,229	1,766	3,153	83,050		
Other signs	153	167	80	· 58	12	16	3	17	506		
No signs or signals	2,331	2,179	857	658	215	147	56	185	6,628		
Total	25,356	44,600	26,673	28,329	12,173	10,568	6,041	12,295	166,035		

TABLE 54. TOTAL CROSSINGS BY NUMBER OF TRAINS PER DAY AND ANNUAL AVERAGE DAILY TRAFFIC, 1994

			Avera	ge Annual Dai	ly Traffic		
Trains	1- 250	251- 500	501- 1,000	1,001- 5,000	5,001- 10,000	> 10,000	Total
11.611.12							
<1	10,823	3,013	2,872	5,569	1,831	1,248	25,356
1-2	21,774	5,238	4,805	8,555	2,484	1,744	44,600
2-3	12,049	3,230	2,937	5,455	1,674	1,328	26,673
6-10	12,621	3,419	3,227	5,957	1,747	1,358	28,329
11-15	5,319	1,314	1,369	2,731	819	621	12,173
16-20	4,244	1,259	1,233	2,459	804	569	10,568
21-25	2,378	662	696	1,442	471	392	6,041
>25	5,047	1,332	1,310	2,755	1,029	822	12,295
Total	74,255	19,467	18,449	34,923	10,859	8,082	166,035

TABLE 55. CROSSINGS BY MAXIMUM TIMETABLE SPEED, 1994

Time	table
Speed	Crossings
1-5	5,507
6-10	30,282
11-15	8,534
16-20	13,050
21-25	21,807
26-30	16,524
31-35	10,197
36-40	17,080
41-45	3,806
46-50	13,844
51-55	2,908
56-60	10,191
61-65	1,271
66-70 71-75	4,699 515
71-75 76-80	5,253
81-85	5,253 1
86-90	464
91-95	1
96-100	8
>100	93
Total	166,035
	•

TABLE 56. TOTAL CROSSINGS BY TYPICAL TRAIN SPEED VARIATION, 1994

Spe	eed
Variation	Crossings
<1	13,882
1-5	43,065
6-10	37,082
11-15	17,116
16-20	16,651
21-25	10,197
26-30	8,554
31-35	4,457
36-40	4,625
41-45	2,339
46-50	3,249
51-55	786
56-60	1,895
61-65	643
66-70	342
71-75	374
76-80	648
81-85	13
86-90	2
91-95	
96-100	
>100	115
Total	166,035

TABLE 57. TOTAL CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC, 1994

AADT	Crossings
1-100	52,014
101-200	15,340
201-300	11,854
301-400	7,388
401-500	7,126
501-600	4,652
601-700	3,549
701-800	4,027
801-900	2,625
901-1,000	3,596
1,001-2,000	15,992
2,001-3,000	8,724
3,001-4,000	5,489
4,001-5,000	4,718
5,001-6,000	3,029
6,001-7,000	2,307
7,001-8,000	2,232
8,001-9,000	1,602
9,001-10,000	1,689
10,001-20,000	6,142
>20,000	1,940
Total	166,035

TABLE 58. TOTAL CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC AND WARNING DEVICE CATEGORY, 1994

	Annual Average Daily Traffic										
Warning device	1-250	251- 500	501- 1,000	1,001- 5,000	5,001- 10,000	> 10,000	Total				
Gates	4,039	3,048	3,771	10,404	4,161	3,627	29,050				
Flashing lights	3,969	3,396	4,454	10.930	3,735	2,841	29,325				
Hwy. signals, wigwags, bells	433	191	202	450	207	178	1,661				
Special warning devices	992	591	649	1.568	562	436	4.798				
Stop signs	6,434	1,761	1,264	1.343	161	54	11,017				
Crossbucks	54,737	9,579	7,307	8.947	1,688	792	83,050				
Other signs	209	84	. 82	95	24	12	506				
No signs or signals	3,442	817	720	1,186	321	142	6,628				
Total	74,255	19,467	18,449	34,923	10,859	8,082	166,035				

TABLE 59. TOTAL CROSSINGS BY TRUCK TRAFFIC AS A PERCENTAGE OF ANNUAL AVERAGE DAILY TRAFFIC, 1994

×	Crossings
<1	6,087
1-5	76,171
6-10	50,153
11-15	15,592
16-20	8,300
21-25	2,135
26-30	4,646
31-35	497
36-40	962
41-45	101
46-50	900
51-55	19
56-60	157
61-65	9
66-70	47
71-75	108
76-80	70
81-85	10
86-90	52
91-95	2
96-99	17
Total	166,035

TABLE 60: TOTAL CROSSINGS BY CROSSING SURFACE, 1994

State	Section Timber	Full Wood Plank	Asphalt	Concrete Slab	Concrete Pavement	Rubber	Metal Sections	Other Metal	Unconsol- idated	Other
Alabama	193	384	2,974	5	1	20	2	1	424	4
Alaska	11	97	57	10	0	40	0	0	1	11
Arizona	180	176	394	2	1	124	0	0	62	2
Arkansas	793	250	1,618	24	8	12	2	2	612	4
California	822	1,284	5,519	80	30	96	0	Ō	129	28
Colorado	703	415	608	30	4	131	7	23	144	11
Connecticut	109	0	115	2	0	142	2	0	0	Ö
Delaware	7	5	195	14	2	44	0	Ö	1	ĭ
Dist Of Columbia	6	1	25	0	5	0	Ō	Ō	ó	ò
Florida	1,216	50	2,088	300	33	235	7	1	108	39
Georgia	120	125	5,409	15	16	16	1	1	492	2
Kawa i i	0	0	. 6	0	0	0	Ò	ò	.,_	ō
Idaho	232	742	439	19	1	30	ŏ	ŏ	82	11
Illinois	1,890	1,473	4,831	39	38	864	7	7	1,094	22
Indiana	823	. 98	5,117	22	14	383	9	Ö	209	3
Iowa	125	1,198	2,201	10	10	312	í	2	1,328	103
Kansas	2,253	2,369	1,137	57	34	123	7	ī	1,921	10
Kentucky	306	313	1,458	1	4	74	1	3	479	Ö
Louisiana	690	586	1,492	105	7	471	i	4	413	ĭ
Maine	53	215	598	0	Ò	9	Ó	ó	7.3	ò
Maryland	207	73	325	Ō	6	62	Ŏ	ő	17	3
Massachusetts	64	29	992	8	Ō	84	Ŏ	Õ	15	ő
Michigan	1,390	424	3,044	11	10	434	90	ĭ	369	18
Minnesota	267	2,577	1,785	17	10	258	0	1	289	14
Mississippi	160	369	1,577	10	4	138	1	1	766	2
Missouri	1,511	751	1,604	18	3	80	2	1	884	18
Montana	25	1,149	285	17	2	10	0	8	20	17
Nebraska	861	733	642	119	40	56	2	2	1,588	15
Nevada	46	55	90	24	1	21	1	2	40	8
New Hampshire	12	57	419	1	0	7	0	0	6	1
New Jersey	154	8	1,428	12	16	83	0	58	68	35
New Mexico	449	186	49	1	2	31	0	0	97	0
New York	417	157	2,287	8	15	283	0	2	94	16
North Carolina	22	47	4,448	6	12	32	1	1	300	6
North Dakota	126	3,551	476	19	2	39	0	2	412	4
Ohio	1,910	174	4,272	11	14	133	0	2	179	18
Oklahoma	1,663	546	1,113	57	15	45	1	6	1,171	10
Oregon	487	1 <u>19</u>	1,336	14	21	60	0	0	44	262
Pennsylvania	967	77	3,781	59	244	95	1	16	3 55	4
Rhode Island	_1	1	79	_0	10	36	0	1	0	0
South Carolina	37	10	2,906	34	3	6	0	1	106	8
South Dakota	13	1,424	444	1	1	118	0	0	86	50
Tennessee	105	239	2,690	5	5	106	3	0	212	6
Texas	4,631	1,208	4,377	239	103	293	5	18	1,830	2
Utah	221	237	383	45	5	25	3	2	84	4
Vermont	34	43	331	0	1	11	Ō	0	75	1
Virginia	230	54	1,739	6	2	14	4	10	125	17
Washington	127	1,245	1,358	76	8	170	0	0	30	4
West Virginia	838	11	759	2	3	10	0	1	346	2
Wisconsin	71	368	3,922	7	25	263	1	1	240	1
Wyoming	44	199	138	2	1	22	0	0	118	6
Puerto Rico FINAL TOTALS	0 27,622	0 25,902	22 85,382	0 1,564	0 792	0 6,151	0 162	0 182	2 17,474	0 804

TABLE 61. TOTAL CROSSINGS BY MAXIMUM TIME TABLE SPEED, WARNING DEVICE CATEGORY AND NUMBER OF TRACKS, 1994

SINGLE TRACK WARNING DEVICES	00-10	11-20	21-30	31-40			E TABLE 61-70		81-90	91-100	101-110	>110	TOTAL
MAKNING DEVICES													
GATES	1263	1695	2441	2266	1975	1586	1145	966	40	4	1	0	13382 21042
FLASHING LIGHTS	4495	3083	5367	3578	2480	1417	326	284	12	0	0	0	1021
HWY. SIGNALS, WIGWAGS, BELLS	376	171	214	128	52	59	11	8	1	0 2	0	0	3316
SPECIAL WARNING DEVICES	2297	541	274	83	54	19	13 267	21 308	12 2	0	0	0	8006
STOP SIGNS	1149	841	1987	1673	1068 6389	711 4621	267 956	1088	122	0	1	ő	62564
CROSSBUCKS	12878	7325	17309 62	11875 15	0309	4021	2	3	122	0	ò	ŏ	365
OTHER SIGNS	177	94 987	792	314	141	110	37	20	4	Ŏ	Ö	ŏ	5074
NO SIGNS OR SIGNALS	2669 25304	14737	28446	19932	12171	8523	2757	2698	193	6	3	Ŏ	114770
TOTAL	25304	14737	20440	17732	12171	OJEJ	_,,,	2070	.,,	-			
MULTIPLE TRACKS							E TABLE						
WARNING DEVICES	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	>110	TOTAL
	970	1521	2470	2437	2319	2083	1892	1829	143	2	2	0	15668
GATES	1793	1244	1905	1405	886	649	206	187	8	ō	Ō	Ö	8283
FLASHING LIGHTS	177	97	150	79	39	42	37	15	4	0	0	0	640
HWY. SIGNALS, WIGWAGS, BELLS SPECIAL WARNING DEVICES	974	235	150	46	27	27	7	12	3	1	0	0	1482
STOP SIGNS	520	386	558	484	378	257	204	222	2	0	0	0	3011
CROSSBUCKS	5237	3007	4462	2801	1765	1472	847	783	112	0	0	0	20486
OTHER SIGNS	53	32	24	16	14	0	2	0	0	0	0	0	141
NO SIGNS OR SIGNALS	849	325	166	77	51	46	18	22	0	0	0	0	1554
TOTAL	10573	6847	9885	7345	5479	4576	3213	3070	272	3	2	0	51265
V • W • E • E • E • E • E • E • E • E • E							- TADIE	COLLO					
ALL CROSSINGS	00-10	11-20	21-30	31-40			IE TABLE 61-70		81-Q0	91-100	101-110	>110	TOTAL
WARNING DEVICES		11-20	21-30	JI"40									
GATES	2233	3216	4911	4703	4294	3669	3037	2795	183	6	3	0	29050
FLASHING LIGHTS	6288	4327	7272	4983	3366	2066	532	471	20	0	0	0	29325
HWY. SIGNALS, WIGWAGS, BELLS	553	268	364	207	91	101	48	23	5	0	1	0	1661
SPECIAL WARNING DEVICES	3271	776	424	129	81	46	20	33	15	3	0	0	4798
STOP SIGNS	1669	1227	2545	2157	1446	968	471	530	4	0		0	11017
CROSSBUCKS	18115	10332	21771	14676	8154	6093	1803	187 <u>1</u>	234	0		0	83050
OTHER SIGNS	230	126	86	31	26	0	_4	3	0	0	0	0	506
NO SIGNS OR SIGNALS	3518	1312	958	391	192	156	55	42	4	0	0 5	0	6628 166035
TOTAL	35877	21584	38331	27277	17650	13099	5970	5768	465	y	2	U	100033

(D A T A)

SUMMARY OF ACCIDENT/INCIDENT

AND

INVENTORY

FOR

PRIVATE CROSSINGS

TABLE 62. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY TYPE OF CONSIST, 1994

		Freight		Pa	assenge	:r	-Yaro	Swite	ching	Other		
State	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
					*****			···				
Alabama	14		4				2					
Alaska												
Arizona	5	1	1							1	1	
Arkansas	4	1							3	3	i	1
California	16	6	4	8	2		5 1			1		
Colorado	7	2	1	,						1		1
Connecticut	1		1	4		4						
Delaware												
Dist. of Columbia										**		
Florida	7	1	2	1		1	2					
Georgia	10	1	3	1			2		1			
Idaho	5		1							1		1
Illinois	12	4	2	2		1	7		1	7		4
Indiana	5	2	5	2			1		1	1		
Iowa							2					
Kansas	1		1				1			1		
Kentucky	14		6				2					
Louisiana	11		4	2	1		1			5		5
Maine	2		1				1					
Maryland	1											
Massachusetts	2			1						1		
Michigan	2			1	1	6	1			1		
Minnesota	4		1				6					
Mississippi	10		4	1			2					
Missouri	8	1	2	1								
Montana	6	1	1	1			1					
Nebraska	4						1			1		
Nevada	1											
New Hampshire	1											
New Jersey						·	1			2		
New Mexico	2			1								
New York	8		2	1						1		
North Carolina	9		2	2			1			1	1	
North Dakota	2											
Ohio	10	1	3				1					
Oklahoma	6	1	4				2			1		
Oregon	2	1					4		1			
Pennsylvania	11		3	1			2			1		
Rhode Island	2		1									
South Carolina	5	2										
South Dakota	1											
Tennessee	5	2	2				2			1		
Texas	34	3	9				15		2	4		
Utah	2		1									
Vermont	2			1								1
Virginia	20	2	5				2			2		
Washington	9	1	6				2			4		
West Virginia	13	1	3				1			2		
Wisconsin	4		2				1			1		
Wyoming	3											
Unknown												
Total	303	34	87	31	4	12	72		9	44	3	13

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars.

TABLE 63. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY STATE AND WARNING DEVICE, 1994

State	Gates	Flashing Lights	Hwy Sig. Wigwags Bells	Special	Cross- Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
Alabama		2			6	2		6	. 16
Alaska									
Arizona			1		. 4				5
Arkansas						1		4	5
California		1	1	1	. 9	15	2	3	32
Colorado					1	4	1	3	9
Connecticut		2	1		1	1	1		6
Delaware									
Dist. of Columbia									
Florida	1	1		1	6		1		10
Georgia	1				5	4		3	13
Idaho					2	1	1	2	6
Illinois		2	1	4	3	5		13	28
Indiana						5	1	3	9
Iowa						1		ī	2
Kansas					1	1		i	3
Kentucky					9	3		4	16
Louisiana		1			11	2	1	4	19
Maine						2		1	3
Maryland					1				1
Massachusetts				1		1		2	4
Michigan		2				1		2	5
Minnesota		1		1	- 3	2	1	ž	10
Mississippi				1	4	3		5	13
Missouri					3	1		5	9
Montana					1	5		2	é 8
Nebraska					1	1		4	6
Nevada			1						1
New Hampshire						1			i
New Jersey				1				2	3
New Mexico					3				3
New York					1		1	8	10
North Carolina					6	3		4	13
North Dakota					2				2
Ohio	1				6	1		3	11
Oklahoma		1			5			3	9
Oregon				1		4		1	6
Pennsylvania		2			4			9	15
Rhode Island			***			1		1	2
South Carolina					3			2	5
South Dakota						1			1
Tennessee		2		1	2			3	8
Texas	2	2	1	2	28	13		5	53
Utah						1		1	2
Vermont	1				2				3
Virginia	1				5	3		15	24
Washington	1				<u>1</u>	9		4	15
West Virginia	1			1	7			7	16
disconsin					2	1	2	1	6
Wyoming					1	1		1	3
Jnknown		*						~	
Total	9	19	6	15	149	100	12	140	450

Note: "Special" are crossings protected by watchmen or members of train crew

TABLE 64. ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY HIGHWAY USER, 1994

	Acc/Inc		Killed		In	jured	Fatal	Injury
Type Of Vehicle	No.	*	No.	x	No.	×	Acc/Inc	Acc/Inc
Automobile	191	40.13	23	53.49	45	34.09	19	35
Truck	156	32.77	14	32.56	49	37.12	10	40
Truck-trailer	102	21.43	4	9.30	27	20.45	4	17
Bus								
School bus								
Motorcycle	1	.21						
Pedestrian	i	.21	1	2.33			1	
Other	25	5.25	1	2.33	11	8.33	1	9
Total	476	100.00	43	100.00	132	100.00	35	101

TABLE 65. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY WARNING DEVICE CATEGORY AND MOTORIST ACTION, 1994

-		Drove Around-			Stopped And -Then Proceeded			-Did Not Stop			Other			Unknown			Total		
	-Ur	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	
				1						2			2			9			
Gates	4			•			4									1			
Cantilever flshrs							,	1		6		2				18	1	4	
Standard flashers				4		2	8	1		0		2			2			2	
Hwy Sig,W W,Bells				1			1			3			1		2	6		-	
				3			9		2	3						15		2	
Special Devices				ō		4	86	14	27	49		7	5		2	149	14	40	
Crossbucks				<u> </u>		2	59	10	25	29	1	10	5		1	100	11	38	
Stopsigns				•		2				- 5	•					12		5	
Other Signs				1			6		4	_		<u> </u>						70	
No Signs Or Signl				3	2	1	73	7	20	60	6	7	4		2	140	15	30	
Total	4			29	2	9	243	32	78	157	7	27	17		7	450	41	121	

Note: "Special" are crossings protected by watchmen or members of train crew. "Hwy Sig" = Highway signals, W W = Wigwags.

TABLE 66. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY SPEED OF TRAIN, CIRCUMSTANCE AND VISIBILITY, 1994

	Dawn			Day			Dusk			Dark			Total		
Speed Of Vehicle	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
RAIL CONSI	S T	STR	υск	HIG	HWA	ΥU	SER								
Standing	5	1	2	76	3	11	7		2	63	2	2	151	6	17
1-9	5			106	13	40	8		4	20	4	6	139	17	50
10-19				71	7	25	3	1		8		4	82	8	29
20-29				9	4	4				3	2		12	6	4
30-39				5	3	3				3	1	1	8	4	4
40-49				2		1				1			3		1
50-59				1									3 1		
60 and over															
Unknown				8		1				5					
						•)		2	13		3
Total	10	1	2	278	30	85	18	1	6	103	9	15	409	41	108
HIGHWAY US	E R	STR	иск	R A I	L C	DNS	I S T								
Standing															
1-9				12		2				5		1	17		
10-19	1		1	7		2				5		2	17		3
20-29				1						1		_			5
30-39				ż		1				2		1	2		1
40-49	1		1	1		i							4		1
50-59													2		2
60 and over										1		1	1		1
Unknown															
UNKNOWN				1						1			2		
Total	2		2	24		6				15		5	41		13
GRAND TOTA	L														
Standing	5	1	2	76	3	11	7		2	63	2	2	151	,	47
1-9	5			118	13	42	8		4	25	4	7	156	6	17
10-19	ī		1	78	7	27	3	1		13		•		17	53
20-29				10	΄.	4				13		6	95	8	34
30-39				7	3	4				4 5	2	1	14	6	. 5
40-49	1		1	3		2				_	1	1	12	4	5
50-59				3 1						1			5		3
60 and over										1		1	2		1
Unknown															
OHATIOWIT				9		1				6		2	15		3
Total	12	1	4	302	3 0	91	18	1	6	118	9	20	450	41	121

TABLE 67. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY RAILROAD AND WARNING DEVICE CATEGORY, 1994

Railroad	Gates	Flashing Lights	Hwy Sig. Wigwags Bells	Special	Cross- Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
Alaska Railroad Corp.									
Alton & Southern Railroad									
Amtrak (Nat'l Railroad Passenger Corp.)	2	1	1		12	3	1	3	23
Atchison, Topeka And Santa Fe Railway Co.					13	2		3	18
Bangor And Aroostook Railroad						2		1	, 3
Belt Railway Co. of Chicago									
Bessemer & Lake Erie Railroad Co.									
Birmingham Southern Railroad Co.									
Burlington Northern Railroad Co.	1	2		3	12	24		28	70
Burtington Northern Kaittoda co.								1	1
Chicago And North Western Transp.									
Chicago, Central & Pacific Railroad Co.	1	1		1	5	1	2	13	24
Consolidated Rail Corp.									
Cuyahoga Valley Railway Co.	1			1	29	6	1	6	44
CSX Transp.					1				1
Dakota, Minnesota & Eastern Railroad								3	3
Delaware And Hudson Railroad Co.						4	1		5
Denver And Rio Grande Western Railroad Co.									
Duluth, Missabe & Iron Range Railway Co.								2	2
Elgin, Joliet And Eastern Railway Co.									2
Florida East Coast Railway Co.	1	1			1				- 1
Fox Valley & Western Ltd.									
Gateway Western Railway					1				3
Grand Trunk Western Railroad Co.		2							
Houston Belt & Terminal Railway Co.						2		5	10
Illinois Central Railroad Co.		2			1				
Indiana Harbor Belt Railroad Co.									14
Kansas City Southern Railway Co.				1	13				
Long Island Rail Road									3
Metro North Commuter Railroad Co.		2	1						3 1
Montana Rail Link								1	
New Jersey Transit Rail Operations									79
Norfolk Southern Corp.	1	3		4	19	13		39	
Northeast Illinois Regional Commuter Rail									
Northern Indiana Commuter Trans.						1			1
Paducah & Louisville Railway Co.									
Port Authority Trans Hudson								1	1
Port Terminal Railroad Assoc.		1		1	3	3		1	9
Soo Line Railroad Co.		1				1	1	3	6
Southeastern Pennsylvania Transp.								1	_1
Southern Pacific Transp. Co.	2	2	3	1	13	13	1	2	37
Southern Pacific, Chicago-St. Louis Corp.									
Springfield Terminal Railway Co.				1					1
St. Louis Southwestern Railway Co.					4	3			7
Terminal Railroad Assoc. of St. Louis									
Texas Mexican Railway Co.				1	1				2
Union Pacific Railroad Co.			1		9	5	1	15	31
Union Pacific Railload Co.									
Union Railroad Company (Pittsburgh)									
Wheeling & Lake Erie Railway Co.					1	3	2	1	7
Wisconsin Central Ltd.		. 1		1	11	14	2	11	40
All Other Railroads		•		•	• •	•	_		
Total	9	19	6	15	149	100	12	140	450

Note: "Special" are crossings protected by watchmen or members of train crew.

TABLE 68. ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY RAILROAD, 1994

		lotor Veh	icle	Othe	er Highwa	y Users	Total				
Railroad			Injured		_	Injured	Acc/Inc		Injured		
Alaska Railroad Corp.											
Alton & Southern Railroad											
Amtrak (Nat'l Railroad Passenger Corp.)	23	4	8	2			25	4	8		
Atchison, Topeka And Santa Fe Railway Co.	18	ż	5	ī			19	2	5		
Bangor And Aroostook Railroad	3		1				3		1		
Belt Railway Co. of Chicago											
Bessemer & Lake Erie Railroad Co.											
Birmingham Southern Railroad Co.											
Burlington Northern Railroad Co.	70	10	9	5	1	2	75	11	11		
Chicago And North Western Transp.	1										
Chicago, Central & Pacific Railroad Co.							1				
Consolidated Rail Corp.			5	1							
· · · · · · · · · · · · · · · · · · ·	24			· ·		1	25		6		
Cuyahoga Valley Railway Co.											
CSX Transp.	44	7	17	2		2	46	7	19		
Dakota, Minnesota & Eastern Railroad	1			1			2				
Delaware And Hudson Railroad Co.	3						3				
Denver And Rio Grande Western Railroad Co.	5		2				5		2		
Duluth, Missabe & Iron Range Railway Co.											
Elgin, Joliet And Eastern Railway Co.	2	1					2	1			
Florida East Coast Railway Co.	2						2				
Fox Valley & Western Ltd.	1						1				
Gateway Western Railway											
Grand Trunk Western Railroad Co.	3		1				3		1		
Houston Belt & Terminal Railway Co.											
Illinois Central Railroad Co.	10		6				10		6		
Indiana Harbor Belt Railroad Co.											
Kansas City Southern Railway Co.	14		5				14		5		
Long Island Rail Road											
Metro North Commuter Railroad Co.	3		4				3		4		
Montana Rail Link	1			2			3				
New Jersey Transit Rail Operations						•••					
Norfolk Southern Corp.	79	6	21	3							
Northeast Illinois Regional Commuter Rail							82	6	21		
Northern Indiana Commuter Trans.	1										
							1				
Paducah & Louisville Railway Co.											
Port Authority Trans Hudson	1						1				
Port Terminal Railroad Assoc.	9		1				9		1		
Soo Line Railroad Co.	6		3				6		3		
Southeastern Pennsylvania Transp.	_1						1				
Southern Pacific Transp. Co.	37	4	12	2		1	39	4	13		
Southern Pacific, Chicago-St. Louis Corp.											
Springfield Terminal Railway Co.	1						1				
St. Louis Southwestern Railway Co.	. 7		5				7		5		
Terminal Railroad Assoc. of St. Louis											
Texas Mexican Railway Co.	2						2				
Union Pacific Railroad Co.	31	6	7	4		4	35	6	11		
Union Railroad Company (Pittsburgh)											
Wheeling & Lake Erie Railway Co.											
Wisconsin Central Ltd.	7	1	3				7	1	3		
All Other Railroads	40		6	3	1	1	43	i	3 7		
	-10		J	,	•	•	40	,	r		
Total	450	41	121	26	2	11	476	43	132		

TABLE 69. (MV) ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY SPEED OF CONSIST, 1994

Speed Of Consist	Freight			Passenger			-Yard Switching				-Other		Total		
	A/I	Kld	Inj	A/I	Klď	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj ——
Standing															
1-9	37		5				62		9	22		6	121		20
10-19	30		4	5			9			8		4	52		8
20-29	56		26	2						1		1	59		27
30-39	63	5	21	4		3	1			6		2	74	5	26
40-49	74	17	20	2		1				3	1		79	18	21
50-59	34	8	8	6	1	7				2	1		42	10	15
60-69	8	4	2	5	2					2	1		15	7	2
70-79	1		1	6	1	1							7	1	2
80-89				1									1		
90 and over															
Unknown															
Total	303	34	87	31	4	12	72		9	44	3	13	450	41	121

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars

TABLE 70. (MV) ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY LENGTH OF CONSIST, 1994

Number Of Cars	Freight			Passenger			-Yard Switching				-Other		Total		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
1-9	39	4	12	24	4	11	43		4	7		5	113	8	32
10-19	34	4	6	6			14		3	1		1	55	4	10
20-29	26	2	7				7		1				33	2	8
30-39	28	7	11				3						31	7	11
40-49	23	1	8				1						24	1	8
50-59	21		2				1						22		2
60-69	20	5	11							1	1		21	6	11
70-79	19	2	4										19	2	4
80-89	15		7										15		7
90-99	19	5	4										19	5	4
100-109	11	3	1				2		1				13	3	2
110-119	32	1	8										32	1	8
120-129	5		1										5		1
130-139	5												5		
140-149	3		5										3		5
150 And over	2												2		
Locomotives only.	1			1		1	1			35	2	7	38	2	8
Total	303	34	87	31	4	12	72		9	44	3	13	450	41	121

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars

TABLE 71. (MV) ACCIDENTS/INCIDENTS AT PRIVATE HIGHWAY-RAIL CROSSINGS, BY OPERATIONAL STATUS OF WARNING DEVICE, CIRCUMSTANCE AND VISIBILITY, 1994

	-Devi	ce Work	rina	\$1	ruck R	y Consi	_	ay User-	n Into	Consis	 +
Warning Device	Yes	No	N/A	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Gates	8		1	1	5		2				1
Cantilever flshrs	1				1						
Standard flashers	18			2	8		6		1		1
Hwy Sig,W W,Bells	6				4		2				
Special Devices			15	2	7	1	1		2		2
Crossbucks			149	2	92	10	29	1	9		- 6
Stopsigns			100	2	66	3	26		1		2
Other Signs			12		7		4		i		
No Signs Or Signl			140	1	88	4	33	1	10		3
Total	33		417	10	278	18	103	2	24		15

Note: If a rail consist is intentionally grounded to prevent activation of the warning device, these are reported as "N/A."

TABLE 72. PRIVATE CROSSINGS AT-GRADE BY STATE AND TYPE DEVELOPMENT, 1994

State	Far n	Residential	Recreational	Industrial	Unknown	Total
Alabama	1,353	265	13	480	0	2,111
Alaska	1,333	14	5	85	0	108
Arizona	396	24	13	255	0	688
Arkansas	1,001	220	20	282	0	1,523
California	2,154	346	123	2,263	9	4,895
Colorado	897	258	23	264	6	1,448
Connecticut	49	30	32	149	1	261
Delaware	87	38	6	22	0	153
Dist Of Columbia	0	0	0	12	0	12
Florida	367	205	33	440	418	1,463
Georgia	1,553	654	26	557	0	2,790
Idaho	888	58	9	467	0	1,422
Illinois	3,802	506	82	1,359	0	5,749
Indiana	1,914	343	29	612	4	2,902
Iowa	3,218	331	51	697	1	4,298
Kansas	3,608	208	8	431	1	4,256
Kentucky	1,604	786	18	422	0	2,830
Louisiana	1,787	520	22	969	1	3,299
Maine	410	118	77	329	0	934
Maryland	427	78	17	210	0	<i>7</i> 32
Massachusetts	170	68	39	261	0	538
Michigan	1,332	395	125	874	0	2,726
Minnesota	2,263	239	49	589	0	3,140
Mississippi	1,431	377	6	276	0	2,090
Missouri	2,336	337	27	599	1	3,300
Montana	1,624	108	23	302	Ō	2,057
Nebraska	2,488	86	13	237	0	2,824
Nevada	28	3	3	30	194	258
New Hampshire	152	87	23	82	0	344
New Jersey	198	62	12	321	1	594
New Mexico	447	32	4	112	0	595
New York	2,161	337	99	582	0	3,179
North Carolina	1,773	922	34	902	1	3,632
North Dakota	1,960	26	10	188	0	2,184
Ohio	2,617	342	45	950	1	3,955
Oklahoma	1,357	153	10	259	0	1,779
Oregon	1,395	337	42	1,104	0	2,878
Pennsylvania	1,483	522	156	1,289	0	3,450
Rhode Island	7	18	9	37	0	71
South Carolina	754	292	16	297	0	1,359
South Dakota	1,143	81	3	134	0	1,361
Tennessee	1,133	398	22	395	0	1,948
Texas	4,421	533	36	1,566	3	6,559
Utah	524	46	10	209	0	789
Vermont	450	62	29	109	0	650
Virginia	533	206	12	319	2,075	3,145
Washington	1,571	431	55	1,155	0	3,212
West Virginia	915	674	50	668	1	2,308
Wisconsin	1,926	255	60	743	0	2,984
Wyoming	778	16	0	136	0	930
Puerto Rico	2	0	0	0	0	104 715
FINAL TOTALS	64,891	12,447	1,629	25,030	2,718	106,715

TABLE 73. PRIVATE CROSSINGS AT-GRADE BY STATE AND TYPE WARNING DEVICE, 1994

State	Signs	Signals	No Signs or Signals	Unknown	Total
Alabama	649	18	1,443	1	2,111
Alaska	70	0	38	0	108
Arizona	418	5	265	0	688
Arkansas	230	6	1,287	0	1,523
California	3,609	102	1,184	0	4,895
Colorado	764	11	673	0	1,448
Connecticut	211	42	8	0	261
Delaware	19	0	134	0	153
Dist Of Columbia	0	0	12	0	12
Florida	9 57	48	458	0	1,463
Georgia	1,447	11	1,332	0	2,790
Idaho	289	10	1,123	0	1,422
Illinois	559	109	5,081	0	5,749
Indiana	274	39	2,589	0	2,902
Iowa	677	15	3,606	0	4,298
Kansas	274	5	3,977	. 0	4,256
Kentucky	558	28	2,244	0	2,830
Louisiana	403	31	2,865	0	3,299
Maine	291	16	627	0	934
Maryland	141	8	583	0	732
Massachusetts	174	13	351	0	538
Michigan	315	35	2,376	0	2,726
Minnesota	1,105	19	2,016	0	3,140
Mississippi	196	4	1,890	0	2,090
Missouri	253	26	3,021	0	3,300
Montana	512	9	1,536	0	2,057
Nebraska	150	6	2,668	0	2,824
Nevada	104	4	149	1	258
New Hampshire	49	4	291	0	344
New Jersey	155	13	426	. 0	594
New Mexico	234	3	358	0	595
New York	319	31	2,829	0	3,179
North Carolina	1,303	19	2,310	0	3,632
North Dakota	368	1	1,815	0	2,184
Ohio	332	44	3,579	0	3,955
Oklahoma	255	9	1,515	Ŏ	1,779
Oregon	944	24	1,909	1	2,878
Pennsylvania	765	28	2,657	Ò	3,450
Rhode Island	41	1	29	Ō	71
South Carolina	955	ġ	395	Ō	1,359
South Dakota	235	2	1,123	ì	1,361
Tennessee	345	12	1,591	ó	1,948
Texas	1,430	80	5,049	Ö	6,559
Utah	173	5	611	Õ	789
Vermont	72	6	572	Ö	650
Virginia	379	28	2,738	ŏ	3,145
Washington	614	17	2,581	ŏ	3,212
West Virginia	311	11	1,986	ŏ	2,308
Wisconsin	414	20	2,550	Ö	2,984
Wyoming	306	5	619	Ö	930
Puerto Rico	1	1	019	Ö	2
INAL TOTALS	24,649	993	81,069	4	106,715
ANTE TOTALS	L-1,047	,,,	31,007	7	100,713

TABLE 74. PRIVATE CROSSINGS AT-GRADE BY TYPE DEVELOPMENT AND WARNING DEVICE, 1994

			No Signs		
State	Signs	Signals	or Signals	Unkno⊮n	Total
Farm	11,303	97	53,491	0	64,891
Residential.	3,958	77	8,412	0	12,447
Recreational	671	27	931	0	1,629
Industrial	8,184	769	16,073	4	25,030
Unknown	533	23	2,162	0	2,718
FINAL TOTALS	24,649	993	81,069	4	106,715

TABLE 75. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND TYPE DEVELOPMENT, 1994

Railroad	Farm	Residential	Recreational	Industrial	Unknoun	Total
Alaska Railroad Corp.	4	14	5	85	0	108
Allegheny and Eastern Railroad	40	16	5	21	0	82
Amtrak (Nat'l Railroad Passenger Corp.)	35	13	3	16	1	68
Arkansas & Missouri Railroad Co.	65	16	0	11	0	92
Arkansas Midland Railroad Co., Inc.	54	9	1	28	0	92
Atchison, Topeka & Santa Fe Railway Co.	2,324	211	20	1,109	2	3,666
Atlanta & Saint Andrews Bay Railway Co.	21	16	2	26	5	70
Austin & Northwestern Railroad	83	11	2	12	0	108 385
Bangor & Aroostook Railroad	184	35	48	118 44	0	365 96
Bessemer & Lake Erie Railroad Co.	38 142	12 57	2 18	195	ŏ	412
Boston & Maine Corp.	145	66	12	40	ő	263
Buffalo & Pittsburgh Railroad, Inc. Burlington Northern Railroad Co.	9,339	1,044	132	2,303	2	12,820
Camas Prairie Railroad Co.	87	4	1	24	ō	116
Canadian Pacific Railway Co.	101	12	22	45	0	180
Cedar Rapids & Iowa City Railway Co.	53	16	1	22	0	92
Cedar River Railroad Co.	86	9	2	7	0	104
Central Kansas Railway, Inc.	469	52	0	58	0	579
Central Michigan Railway Co.	74	23	2	88	0	187
Central Railroad Co. Of Indianapolis	1	1	Ō	. 1	0	3
Central Vermont Railway, Inc.	142	29	6	46	0	223
Chehalis Western	62	10	.0	24	0	96
Chicago & North Western Transportation Co.	3,043	253	47	841	0	4,184
Chicago Missouri & Western Railway	92	3	0	20	0	115
Chicago, Central & Pacific Railroad Co.	524	24	3	150	0	701
Columbus & Greenville Railway Co.	242	39	0 220	29 2,080	0 2	310 7,323
Consolidated Rail Corp.	4,105	916	157	2,760	848	11,087
CSX Transportation	5,385 480	1,937 7	157	2,760 66	0	554
Dakota, Minnesota & Eastern Railroad	159	ó	ó	0	Ŏ	159
Dakota, Missouri Valley & Western Railroad Delaware & Hudson Railway Co.	305	49	37	55	ŏ	446
Delta Southern Railroad Co.	99	12	0	8	Ŏ	119
Denver & Rio Grande Western Railroad Co.	310	175	16	168	4	673
Department of Defense - Other	22	14	1	194	3	234
Detroit & Mackinac Railway Co.	88	64	31	24	0	207
Duluth, Missabe & Iron Range Railway Co.	24	17	1	89	0	131
Eastern Idaho Railroad	162	4	1	102	0	269
Elgin, Joliet & Eastern Railway Co.	<u>51</u>	1	_0	37	0	89
Escanaba & Lake Superior Railroad Co.	73	28	30	31	0	162
Florida Central Railroad Co.	5	12	1	16	21	55 117
Florida East Coast Railway Co.	5	3	1 13	19 118	8 6 0	114 449
Fox Valley & Western Ltd.	261 175	57 1	13	19	0	156
Gateway Western Railway	135 48	20	3	16	ő	87
Georgia Central Railroad	111	27	6	22	ŏ	166
Georgia Southwestern Railroad Division Grainbelt Corp.	86	1	ĭ	5	Ŏ	93
Grand Trunk Western Railroad Inc.	398	25	4	71	Ŏ	498
Great Western Railway Co.	113	4	1	9	0	127
Gulf And Mississippi Railroad Corp.	306	95	3	56	0	460
Hillsdale County Railway Co., Inc.	56	5	1	6	0	68
Houston Belt & Terminal Railway Co.	0	1	0	42	0	43
Huron & Eastern Railway	101	7	2	44	0	154
Idaho Northern & Pacific Railroad Co.	118	5	0	59	0	182
Illinois Central Railroad Co.	1,109	241	8	349	0	1,707
Indiana & Ohio Central Railroad, Inc.	67	3	1	16	0	87 106
Indiana Hi-Rail Corp.	69	10 23	1 2	26 24	0	152
Indiana Rail Road Co.	103 250	23 28	1	47	Ö	326
Iowa Interstate Railroad	97	16	ż	4	ő	119
Iowa Northern Railway Co. Kankakee, Beaverville & Southern Railroad	57	0	1	2	Ö	60
Kankakee, Beaverville & Southern Railload Kansas City Southern Railway Co.	291	42	5	154	ŏ	492
Kansas City Southern Railway Co.	78	1	ō	15	1	95
Kansas Southwestern Railway	129	7	Ō	27	Ó	163
Kiamichi Railroad Co., Inc.	59	27	0	11	0	97
Kyle Railroad Co.	321	22	3	21	0	367
Lamoille Valley Railroad Co.	87	3	8	7	0	105
Long Island Rail Road	67	4	3	8	0	82

TABLE 75. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND TYPE DEVELOPMENT, CONT., 1994

Railroad	Farm	Residential	Recreational	Industrial	Unknown	Total
Louisiana & Arkansas Railway Co.	446	62	1	70	0	579
Louisiana & Delta Railroad	133	12	i	27	0	173
Maine Department Of Transportation	46	23	3	15	Ö	87
Maryland & Delaware Railroad Co.	106	14	1	16	ŏ	137
Maryland Dept. Of Transportation	76	11	ż	12	Ö	101
Mass. Bay Transporatation Authority	15	8	6	19	Ö	48
Mid-Atlantic Railroad Co., Inc.	50	48	ō	25	Ö	123
Mid-Michigan Railroad Co.	41	, 3	4	47	ŏ	95
Midd States Port Authority	156	4	1	9	ŏ	170
Midsouth Railroad Corp.	130	62	Ó	77	ŏ	269
Missouri & Northern Arkansas Railroad Co.	265	12	Ŏ	76	ŏ	353
Monongahela Railway Co.	40	18	2	33	Ö	93
Montana Rail Link	467	63	15	139	Ö	684
MNVA Railroad, Inc.	81	14	ő	6	ő	101
Nashville & Eastern Railroad	126	13	ĭ	11	0	151
Nebraska Central Railroad	218	1	i	16	0	
New Jersey Transit Rail Operations	43	15	5	33	0	236
New Orleans Lower Coast Railroad, Inc.	20	106	9	45		96 180
New Orleans Public Belt Railroad	0	0	0	156	0 0	180 154
New York City Trans. Authority (MTA)	6	ő	1	8	0	156
New York, Susquehanna & Western Railroad Co.	149	30	ż	42	0	15
Norfolk Southern Corp.	5,936	2,163	75	1,901		223
North Carolina Department Of Transportation	39	68	ő	•	1,428	11,503
Northeast Kansas & Missouri	103	3	Ö	15 0	0	122
Ohio Central Railroad Co.	121	4	0	25	0	106
Oklahoma Department Of Transportation	80	17	Ö	25 8	-	150
Oklahoma Kansas & Texas Railroad Co.	88	5	1		0	105
Paducah & Louisville Railway Co.	118	30	i	16 36	0	110
Pittsburgh & Lake Erie Railroad Co.	1	29	5		0	185
Prairie Trunk Railway	54	3	1	64 3	0	99
Providence & Worcester Railroad Co.	46	17	12		0	61
Red River Valley & Western Railroad	293	4	0	48 10	0	123
Seminole Gulf Railroad	7	1		19	0	316
Soo Line Railroad Co.	1,996	236	1	13	9	31
South Carolina Central Railroad Co., Inc.	31	236 14	48	452	0	2,732
South Dakota Railroad Authority	217	41	0	20	0	65
South Kansas & Oklahoma Railroad Co.	212		2	22	0	282
South Orient Railroad Co., Ltd.	156	9 4	0	24	0	245
Southeastern Pennsylvania Transportation			1	12	0	173
Southern Pacific Transportation Co.	22	12 771	2	17	0	53
Southern Pacific, Chicago-St. Louis Corp.	2,252	371	108	2,075	87	4,893
Springfield Terminal Railway Co. (Vermont)	59	5	0	23	0	87
St. Louis Southwestern Railway Co.	108	31	6	138	0	283
State Subsidy	614	75 73	4	87	0	780
	64	32	12	31	0	139
Tennessee Southern Railroad Co., Inc. Terminal Railroad Association Of St. Louis	52	5	0	8	0	65
	3	0	0	9	0	12
Texas & Oklahoma Railroad Co.	179	2	0	9	0	190
Texas Mexican Railway Co.	117	1 <u>8</u>	2	57	1	195
exas Northeastern DivisionMid-Michigan	94	7	1	13	0	115
oledo, Peoria & Western Railway Corp.	192	21	0	57	0	270
ulare Valley Railroad Co.	141	4	Ō	87	0	232
uscola & Saginaw Bay Railroad Co., Inc.	106	51	6	80	0	243
Win City & Western Railroad	_ 102	2	0	2	0	106
nion Pacific Railroad Co.	7,475	815	63	2,151	105	10,609
/ermont Railway, Inc.	100	16	4	28	0	148
ashington Central Railroad Co.	202	66	6	70	0	344
heeling & Lake Erie Railway Co.	231	42	6	163	0	442
lisconsin & Southern Railroad Co.	275	4	5	31	0	315
disconsin Central Ltd. (also Railway)	719	117	23	348	0	1,207
All Unknown Railroads	6,432	1,675	278	3,796	113	12,294
TOTALS	64,891	12,447	1,629	25,030	2,718	106,715
			•	-	•	• • • •

TABLE 76. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND TYPE WARNING DEVICE, 1994

Railroad	Signs	Signals	No Signs or Signals	Unknown	Total
Alaska Railroad Corp.	70	0	38	0	108
Allegheny and Eastern Railroad	10	1	71	0	82
Amtrak (Nat'l Railroad Passenger Corp.)	3 <u>1</u>	8	29	0	68
Arkansas & Missouri Railroad Co.	3 4	0	89 88	0	92 92
Arkansas Midland Railroad Co. Inc. Atchison, Topeka & Santa Fe Railway Co.	1,167	47	2,452	0	3,666
Atlanta & Saint Andrews Bay Railway Co.	40	Ö	30	Ŏ	70
Austin & Northwestern Railroad	14	0	94	0	108
Bangor & Aroostook Railroad	86	5	294	0	385
Bessemer & Lake Erie Railroad Co.	11	0	85 747	0	96
Boston & Maine Corp.	85 22	13 0	314 241	0 0	412 263
Buffalo & Pittsburgh Railroad, Inc. Burlington Northern Railroad Co.	2,898	117	9,804	1	12,820
Camas Prairie Railroad Co.	16	1	99	Ó	116
Canadian Pacific Railway Co.	54	2	124	0	180
Cedar Rapids & Iowa City Railway Co.	11	0	81	0	92
Cedar River Railroad Co.	81	0	23	0	104 579
Central Kansas Railway, Inc.	39 15	0	540 172	0	187
Central Michigan Railway Co. Central Railroad Co. Of Indianapolis	1	0	2	Ö	3
Central Vermont Railway, Inc.	63	9	151	Ō	223
Chehalis Western	21	0	75	0	96
Chicago & North Western Transportation Co.	504	20	3,660	0	4,184
Chicago Missouri & Western Railway	5	0	110	0	115
Chicago, Central & Pacific Railroad Co.	267 5	2	432 305	0 0	701 310
Columbus & Greenville Railway Co. Consolidated Rail Corp.	940	70	6,313	0	7,323
CSX Transportation	4,271	166	6,650	Ŏ	11,087
Dakota, Minnesota & Eastern Railroad	52	0	·501	1	554
Dakota, Missouri Valley & Western Railroad	12	0	147	0	159
Delaware & Hudson Railway Co.	33	9	404	0	446
Delta Southern Railroad Co.	11 564	0 3	108 106	0 0	119 673
Denver & Rio Grande Western Railroad Co. Department of Defense - Other	146	0	88	ő	234
Detroit & Mackinac Railway Co.	28	ő	179	ŏ	207
Duluth, Missabe & Iron Range Railway Co.	117	2	12	0	131
Eastern Idaho Railroad	38	2	229	Ō	269
Elgin, Joliet & Eastern Railway Co.	16	5	68	0	89
Escanaba & Lake Superior Railroad Co.	15 51	2 1	145 3	0 0	162 55
Florida Central Railroad Co. Florida East Coast Railway Co.	55	5	54	0	114
Fox Valley & Western Ltd.	57	3	389	ŏ	449
Gateway Western Railway	5	0	151	0	156
Georgia Central Railroad	84	0	3	0	87
Georgia Southwestern Railroad Division	126	0	40	0	166
Grainbelt Corp.	2 35	12	90 451	0	93 498
Grand Trunk Western Railroad Inc. Great Western Railway Co.	43	1	83	ő	127
Gulf And Mississippi Railroad Corp.	36	Ö	424	0	460
Hillsdale County Railway Company, Inc.	1	0	67	0	68
Houston Belt & Terminal Railway Co.	5	0	38	0	43
Huron & Eastern Railway	4	0	150	0	154 182
Idaho Northern & Pacific Railroad Co. Illinois Central Railroad Co.	37 231	2 21	143 1,455	0	1,707
Indiana & Ohio Central Railroad, Inc.	2	0		ŏ	87
Indiana Hi-Rail Corp.	5	Ŏ	101	Õ	106
Indiana Rail Road Co.	10	0	142	0	152
Iowa Interstate Railroad	35	3		0	326
Iowa Northern Railway Co.	6	0	113	0	119
Kankakee, Beaverville & Southern Railroad	1 90	1 4	58 398	0	60 492
Kansas City Southern Railway Co. Kansas City Terminal Railway Co.	16	0		Ö	95
Kansas Southwestern Railway	3	Ö	160	Ö	163
Kiamichi Railroad Company, Inc.	19	0		0	97
Kyle Railroad Co.	8	0		0	367
Lamoille Valley Railroad Co.	4	0	101	0	105

TABLE 76. PRIVATE CROSSINGS AT-GRADE BY RAILROAD AND WARNING DEVICE, CONT., 1994

Railroad	Signs	Signals	No Signs or Signals	Unknown	Total
Long Island Rail Road	3	5	74	0	82
Louisiana & Arkansas Railway Co.	58	4	517	0	579
Louisiana & Delta Railroad	11	0	162	0	173
Maine Department Of Transportation	27	1	59	0	87
Maryland & Delaware Railroad Co.	5	0	132	0	137
Maryland Dept. Of Transportation	3	0	98	0	101
Mass. Bay Transporatation Authority	24	0	24	0	48
Mid-Atlantic Railroad Co. Inc.	110	0	13	0	123
Mid-Michigan Railroad Co.	6	0	89	0	95
Midd States Port Authority	14	0	156	0	170
Midsouth Railroad Corp.	39	0	230	0	269
Missouri & Northern Arkansas Railroad Co.	26	0	327	0	353
Monongahela Railway Co.	33	0	60	0	93
Montana Rail Link	149	4	531	0	684
MNVA Railroad, Inc.	8	0	93	0	101
Nashville & Eastern Railroad	2	. 0	149	0	151
Nebraska Central Railroad	6	0	230	0	236
New Jersey Transit Rail Operations	36	3	57	0	96
New Orleans Lower Coast Railroad, Inc.	8	1	171	0	180
New Orleans Public Belt Railroad	24	0	132	0	156
New York City Trans. Authority (MTA)	8	0	7	0	15
New York, Susquehanna & Western Railroad Co.	27	2		0	223
Norfolk Southern Corp.	1,617	52	9,833	1	11,503
North Carolina Department Of Transportation	· 11	0		0	122
Northeast Kansas & Missouri	1	0	105	0	106
Ohio Central Railroad Co.	28	0	122	0	150
Oklahoma Department Of Transportation	11	0	94	0	105
Oklahoma Kansas & Texas Railroad Co.	14	1	95	0	110
Paducah & Louisville Railway Co.	44	3	138	0	185
Pittsburgh & Lake Erie Railroad Co.	60	6	33	0	99
Prairie Trunk Railway	3	0	58	0	61
Providence & Worcester Railroad Co.	76	7	40	0	123
Red River Valley & Western Railroad	45	0	271	0	316
Seminole Gulf Railroad	23	0	8	0	31
Soo Line Railroad Co.	237	19	2,476	0	2,732
South Carolina Central Railroad Co.	57	0		0	65
South Dakota Railroad Authority	21	1	260	0	282
South Kansas & Oklahoma Railroad Co.	21	0	224	0	245
South Orient Railroad Company, Ltd.	44	Ō	129	0	173
Southeastern Pennsylvania Transportation	1	1	51	0	53
Southern Pacific Transportation Co.	2,148	97	2,648	0	4,893
Southern Pacific, Chicago-St. Louis Corp.	6	1	•	0	. 87
Springfield Terminal Railway Co.	108	9		0	283
St. Louis Southwestern Railway Co.	199	5		0	780
State Subsidy	41	Ō		Ō	139
Tennessee Southern Railroad Co., Inc.	1	2		Ō	65
Terminal Railroad Association Of St. Louis	4	ō		Ŏ	12
Texas & Oklahoma Railroad Co.	4	Ŏ		Ō	190
Texas Mexican Railway Co.	18	22		Ŏ	195
Texas Northeastern DivisionMid-Michigan	14	0		Ö	115
Toledo, Peoria & Western Railway Corp.	16	Ŏ		ŏ	270
Tulare Valley Railroad Co.	176	Ö		ŏ	232
Tuscola & Saginaw Bay Railroad Co., Inc.	18	ŏ		ŏ	243
Twin City & Heatenn Deilnerd	10	Ö		ŏ	106
Twin City & Western Railroad	1,638	79		0	10,609
Union Pacific Railroad Co.	1,038	3	•	Ö	148
Vermont Railway, Inc.	65	0		0	344
Washington Central Railroad Co.	77	2		Ö	442
Wheeling & Lake Erie Railway Co.	13	0		0	315
Wisconsin & Southern Railroad Co.	199	3		0	1,207
Wisconsin Central Ltd. (also Railway)		122		1	12,294
All Unknown Railroads	4,208 24,649	993		4	106,715
L TOTALS	24,049	773	81,069	4	100,115

APPENDIX A

REPORTING

REQUIREMENTS

AND

DEFINITIONS

ACCIDENT/INCIDENT REPORTABILITY REQUIREMENTS

The rules governing monthly reporting of railroad accidents/incidents in effect in 1992 define a reportable accident/incident as an event arising from the operation of a railroad that results in one or more stated circumstances.

- (a) An impact occurs between railroad on-track equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, pedestrian or other highway user at a highway-rail crossing.
- (b) Any collision, derailment, fire, explosion, act of GOD or other event involving the operation of railroad on-track equipment (standing or moving) which results in more than \$6,300 in damages to railroad on-track equipment, signals, track and/or track structures, and roadbed.
- (c) Any event arising from the operation of a railroad which results in:
 - (i) death of one or more persons;
 - (ii) injury to one or more persons, other than railroad employees, requiring medical treatment;
 - (iii) injury to one or more employees requiring medical treatment or resulting in restriction of work or motion for one or more days, one or more lost work days, transfer to another job, termination of employment or loss of consciousness;
 - (iv) any occupational illness of railroad employee diagnosed by a physician.

DEFINITIONS

Annual Average Daily Traffic. An estimate of the annual average daily highway traffic in both traffic directions.

Active Warning Devices. A warning system activated by an approaching train: gates, flashing lights, highway signal, wigwags, or bells.

Car. A railway car designed to carry freight, railroad personnel, or passengers. This includes boxcars, covered hopper cars, flatcars, refrigerator cars, gondola cars, hopper cars, tank cars, cabooses, stock cars, ventilation cars, and special cars. Also includes on-track maintenance equipment.

Class I Railroad. A railroad with an annual gross operating revenue in excess of \$250 million based on 1991 dollars.

Commercial Power. A source of commercial power within 500 feet of a crossing.

Consist. On-track railroad equipment such as a train, locomotive, group of railroad cars, or a single railcar not coupled to another car or to a locomotive.

Contractor Employee. A person employed by a contractor hired by a railroad to perform normal maintenance work to railroad rolling stock, track structure, bridges, buildings, etc.

Crossing Surfaces.

- 1. Sectional treated timber. Prefabricated units approximately eight feet long, made of treated timber, individually installed, and removable for maintenance and replacement purpose.
- 2. Full wood plank. A wood surface, other than sectional treated timber, covering the entire crossing area above crossties.
- 3. Asphalt. A surface over the entire crossing area or the area between plants or other material which forms flangeway openings with or without single planks on the outside of running rails.
- 4. Concrete slab. Precast concrete slabs which are installed and individually removable for maintenance and replacement.
- 5. Concrete pavement. A continuous concrete surface over the track area which cannot be removed except by destruction of the surface.

- 6. Rubber slabs. Performed rubber sections which can be installed and removed individually for maintenance and replacement.
- 7. Metal sections. Preformed sections of steel or other metal which can be individually installed and removed for maintenance and replacement.
- 8. Other metal. A crossing area completed with covered rails or other permanent metal materials in limited sectional units.
- 9. Unconsolidated. Ballast or other unconsolidated material placed above the tops of crossties with or without planks on one or both sides of running rail.

Daylight Train Movements. Train movements between 6 a.m. and 6 p.m.

Employee. A person engaged in railroad operations who works for a railroad company in return for financial or other compensation.

Employee Not On Duty. A railroad employee who is on railroad property for a purpose connected with his or her employment or with other railroad permission, but who is not engaged in rail operations for financial or other compensation.

Fatality. The death of a person resulting from an injury incurred during railroad operations or resulting from an occupational illness if death occurs within 365 days of initial diagnosis.

Highway-rail Crossing. A location where one or more railroad tracks intersect a public or private thoroughfare, a sidewalk, or a pathway.

Highway Signals. Train-activated highway lights (red-amber-green) that control highway traffic over the crossing.

Locomotive. A self-propelled unit of on-track equipment designed for moving other rail freight and passenger equipment on rail tracks, including self-propelled units.

Main Track. Any track other than auxiliary track that extends through railroad yards or between stations and over which trains operate by time-table and/or train orders or the use of the track is governed by a signal system.

Maximum Timetable Speed. Maximum train speed permitted over a crossing.

Nearby Intersecting Highway. A highway intersection within 75 feet of the crossing.

Night Train Movements. Train movements between 6 p.m. and 6 a.m.

Non-train Incident. An event arising from railroad operations but not from the

movement of on-track equipment, which does not exceed the reporting threshold, and results in a death, a reportable injury, or a reportable occupational illness.

Nontrespassers. A person who is lawfully on any part of railroad property which is used in railroad operations or a person who is adjacent to railroad premises when injured as the result of railroad operations.

Number Of Crossbucks. Masts with crossbucks; a mast with two or more crossbucks is counted as one. A crossbuck on an active device is not counted.

On-Track Equipment. Railroad rolling stock used to transport freight or passenger. It includes locomotives, railroad cars, maintenance equipment, and one or more locomotives coupled to one or more cars.

Other Signs. Signs other than crossbucks or stop signs.

Other Stop Signs. Stop signs other than standard highway stop signs.

Passenger. A person who is on, boarding, or alighting from a railroad car for the purpose of travel, without participating in its operation.

Passive Warning Device. A warning system not automatically activated by an approaching train: signs (crossbucks or standard highway signs) or special warning devices (manually operated gates, flood lights, etc.).

Pavement Markings. Markings prescribed or generally similar to those in highway traffic manuals, in particular, stoplines and railroad crossing symbols.

Percentage Trucks. The percentage of total daily highway traffic represented by trucks.

Public Crossing. A location open to public travel where railroad tracks cross a road that is under the jurisdiction and maintenance of a public authority.

Railroad. Any surface transportation system which carries passengers, goods, materials, or property over rails.

Railroad Advance Warning. Advance warning signs on any highway approach.

Rural Crossing. A crossing classification derived from the Functional Classification Code.

Signals For Train Operation. Automatic signals or interlocks which control train operations in the vicinity of a crossing.

Smallest Crossing Angle. The smallest angle between the highway and the track.

Special Warning Devices. Non-train-activated devices other than signs including manually operated gates, train crews flagging a crossing, watchmen, and flood lights.

Speed Selection For Trains. A uniform warning time for the speed range of trains normally encountered at the crossing.

Standard Highway Stop Sign. Octagonal red sign with white lettering STOP.

Stop Signs. The standard highway stop sign or other stop signs.

Switch Trains. All trains other than thru trains, including locals, industrial runs, and switch engines.

Thru Trains. Trains whose primary responsibility is to move cars over the road; they may have a limited number of pickups and setouts along the route.

Total Train Movements. All train movements for the reporting company and all other railroads operating over the crossing.

Traffic Lanes. Number of highway traffic lanes not including shoulders or parking lanes.

Train Accident. A collision, derailment, or other event involving the operation of railroad on-track equipment resulting in damages that exceed the reporting threshold.

Train Incident. Any event involving the movement of railroad on-track equipment that results in a death, a reportable injury, or a reportable illness, but in which railroad property damage does not exceed the reporting threshold.

Trespasser. Any person whose presence on railroad property used in railroad operations, is prohibited or unlawful.

Truck Pullout Lane. A special lane designed to accommodate vehicles which are required to stop at a crossing.

Type of Development.

- 1. Open space. An area that is undeveloped, sparsely developed, very lightly populated, or agricultural.
- 2. Residential. An area comprised of private residences.
- 3. Commercial. An area with retail stores, businesses, offices, and personal service offices.
- 4. Industrial. An area with manufacturing, construction, heavy products,

factories, and warehouses.

5. Institutional. An area with schools, churches, hospitals, parks, and other community facilities.

Urban Crossing. A crossing classification derived from the Functional Classification Code.

Warning Device Category. At crossings which have more than one warning device, the warning category is determined by the following method:

8)	Gates ¹
7)	Flashing lights ¹
6)	Highway signals, wigwags or bells
5)	Special warning devices
3)	Stop signs
4)	Crossbucks
2)	Other signs
1)	No signs or signals
	7) 6) 5) 3) 4) 2)

¹When cantilevered flashing lights are categorized separately, they are ranked eighth and gates are ranked ninth.

APPENDIX B

REPORTING

FORMS

FORMS

Three separate forms may be required to properly report a highway-rail crossing accident/incident:

FRA F 6180-57 Grade Crossing Accident/Incident Report FRA F 6180-55 Railroad Injury and Illness Summary FRA F 6180-54 Rail Equipment Accident/Incident Report

For all reportable highway-rail crossing accidents/incidents, Form FRA F 6180-57 must be submitted by the carrier which has on-track equipment involved. If reportable casualties result, they must be individually reported on Form F 6180-55. If the accident resulted in more than \$6,300 in damages to railroad on-track equipment, signals, track, track structures, or roadbed, Form FRA 6180-54 must also be submitted.

DEPARTMENT OF TRANSPORTATION Form Approved FEDERAL RAILROAD ADMINISTRATION OMB No. 2130-0500 RAILROAD INJURY AND ILLNESS SUMMARY 1. NAME OF REPORTING RAILROAD 2. ALPHABETIC 4. STATE ALPHA- 5. COUNTY 3. REPORT CODE MONTH & YEAR BETIC CODE NAME OF REPORTING OFFICER OFFICIAL TITLE ADDRESS TELEPHONE (Area Code) (Number) 6. _, being first duly sworn, do say upon my oath that I (Name of Affiant) am _, of the railroad aforesaid and as such officer of the said railroad it is my duty to have supervision (Title of Office held by affiant) over the record of reportable incidents arising from the operation of the said railroad, and that I have caused to be compiled from the said record and to be carefully examined the annexed report of such incidents occurring during the month named at the head of this sheet; and that the said report is true and complete to the best of my knowledge and belief. Subscribed and sworn to before me, a notary public in and for the State and County aforesaid, this _____day of ______, 19 ____. (Use an im-[L.S]pression seal) _ (Notary Public) (Signature of affiant) MILES RUN DURING MONTH A. LOCOMOTIVE TRAIN MILES B. MOTOR TRAIN MILES C. YARD SWITCHING MILES D. TOTAL A. EMPLOYEE MANHOURS WORKED B. PASSENGER MILES OPERATED C. NUMBER OF PASSENGERS TRANSPORTED TOTAL TRAIN ACCIDENTS TOTAL FRA FORMS 6180-55A TOTAL FRA FORMS 6180-54 TOTAL FRA FORMS 6180-57 SECTION A-RECAPITULATION OF ALL SECTION B-RECAPITULATION OF ALL CASUALTIES INCLUDING HIGHWAY GRADE HIGHWAY GRADE CROSSING ACCIDENT/ **CLASS OF PERSON** CROSSING ACCIDENT/INCIDENT CASUALTIES **INCIDENT CASUALTIES** FOR SECTIONS TRAIN TRAIN NONTRAIN A AND B TRAIN TRAIN NONTRAIN TOTAL TOTAL ACCIDENTS **INCIDENTS** INCIDENTS ACCIDENTS INCIDENTS INCIDENTS Inj Kld Kld KId Kid KId Ini Ini Ini Kld Kld Ini Ini Ini KId Inj 1. Employees on duty 2. Employees not on duty 3. Passengers on trains 4. Other nontrespassers 5. Trespassers (all classes) 6. Contractor Employees 7. GRAND TOTAL SECTION C-MEMORANDUM-SUBSEQUENT FATALITIES DEVELOPED FROM REPORTED CASUALTIES ACCIDENT/INCIDENT TYPE PERSON LINE DATE OF INJURY DATE OF DEATH STATE NUMBER OR JOB CODE NO.

FORM **FRA F 6180-55** (8-76)

REPLACES FORM FRA F 6180-55 (12-74) WHICH IS OBSOLETE.

DEFINITIONS

A train accident is any collision, derailment, fire, explosion, act of God, or any other event involving operation of railroad on-track equipment (standing or moving) which results in damages to railroad on-track equipment, signals, track, track structures, and roadbed above the dollar threshold listed in the current FRA Guide for Preparing Accident/Incident Reports.

A train incident is any event arising from the movement of an equipment consist, which results in a reportable death, injury or illness, but not more than the damages required for reporting train accidents.

A nontrain incident is any event arising from the operation of a railroad, other than a train accident or train incident, which results in a reportable death, injury or illness.

A reportable death, injury, or illness is any event arising from the operation of a railroad which results in:

- (a) death to one or more persons;
- (b) injury to one or more persons, other than railroad employees, that requires medical treatment;
- (c) injury to one or more employees that requires medical treatment or results in restriction of work or motion for one or more days, one or more lost workdays, transfer to another job, termination of employment, or loss of consciousness; or
- (d) any occupational illness of a railroad employee, as diagnosed by a physician.

An equipment consist is a train, locomotive(s), cut of cars, or any single car not coupled to another car or locomotive.

A train is defined as a locomotive unit or locomotive units coupled, with or without cars and with or without markers displayed. Included in this definition are those trains consisting entirely of self-propelled units designed to carry passenger and/or freight traffic.

A locomotive is a self-propelled unit of equipment designed for moving other equipment and includes a self-propelled unit designed to carry freight and/or passenger traffic. For rapid transit and commuter reporting, any powered unit, including a married pair, will be identified as a locomotive.

A car is

- (a) any unit of equipment designed to be hauled by locomotives, or
- (b) any unit of on-track work equipment such as a track motorcar, a highway-rail car, on-track push car, on-track crane, on-track ballast tamping machine, etc.

* U.S Government Printing Office 1992-312-673/62884



RAILROAD INJURY AND ILLNESS SUMMARY (CONTINUATION SHEET)

FORM APPROVED OMB NO. 2130-0500

SHEET OF				
	SHEE	т —	0	F

I. NAME OF REPORTING RAILROAD	2. ALPHABETIC CODE 3. REPORT MONTH
9.	

CASUALTIES (Cont.)

CASUALTIES (Cont.)									
ACCIDENT/ INCIDENT NUMBER	b. TYPE PERSON OR JOB CODE	c. INJURY OR ILLNESS CODE	d. OCCURRENCE CODE	e. AGE	f. NUMBER OF DAYS AWAY FROM WORK	E-NUMBER OF DAYS OF RESTRICTED ACTIVITY	h. CASES WITH- OUT LOST WORK DAYS	STATE ALPHABETIC CODE	
. "				-					
				_					
				 					
				_				-	
				-		 			
				-			-		
HAVE MANUTE OF								 	
					<u> </u>				
						<u> </u>			
								<u> </u>	
				-		-		<u> </u>	
Literatura									
				+	<u> </u>		1	-	
				+				-	
				-					
	<u> </u>		1			1	1		

DEPARTMENT OF TRANSPORTATION FEDERAL, RAILROAD ADMINISTRATION

RAIL EQUIPMENT ACCIDENT/INCIDENT REPORT

FORM APPROVED OMB NO.2130-0002

												·			
1. NAME OF REPORTIN	G RAILROAD				Amtrak		1a. Alphabe	tic Code			1b. Rail	road Acci	dent/Incid	ent No.	
2. NAME OF OTHER RA	AILROAD INVOLVED IN 1	RAINACCIDE	NT/INCID	NT	Autotrain		2a. Alphabe	2a. Alphabetic Code				road Accid	dent/Incid	ent No.	
3. NAME OF RAILROAD	RESPONSIBLE FOR TRA	CK MAINTEN	ANCE (singl	e entry)			3a. Alphabetic Code				3b. Rail	road Accid	dent/Incid	ent No.	
4. U. S. DOT-AAR GRADE CROSSING IDENTIFICATION NUMBER								5. DATE OF ACCIDENT/INCIDENT month day year				OF ACC	IDENT/IN	ICIDENT	1
7. TYPE OF ACCIDENT/	INCIDENT (enter number in	code box, sing	le entrvi							γear				am	pm
1. Derailment	3. Rear end collision 4. Side collision	ion 5. R	laking coll roken trai			Ĥwy cros rade cros		bstruction kplosion-Deton		11. Fire or vic	olent ruptu	re 12	Other (specify)	l
8. CARS CARRYING		In 0400				S MAT	ERIALS (n								
6. CARS CARRIING	OR DERAIL	.ED		10. CARS WHICH RELEASED HAZ. MAT. 11. PEOPLE EVACUATED (est.					(est.)						
						LOC	ATION	·				············			
12. DIVISION		13. NEAF	REST STAT	ION			14. MILEPO	ST (to nearest te	enth)		15. STA	TE (two l	etter code)	CODE
					ENVIRO	MENT	AL CONDI	TIONS				·· -			<u>L</u>
16. TEMPERATURE (spec	•	17. VISIB 1. Da	ILITY (sing					ER (single entry)	,						CODE
	°F	2. Da		3. Dusk 4. Dark		ŀ	1. Clea	r 2. Cloud	ly 3.	Rain 4.	Fog	5. Sie	et i	6. Snow	ł
19. METHOD					OPE	RATIO	NAL DATA	4							
(place X in	1 Manual block	4	Automa	ıtic block	7 [Yard	d rules	10	Auto	. train control		13 🔲 (Other (sp	ecify)	
	2 Interlocking	5	Traffic	control	8	Tim	e table	11	Verba	ol permission		_			
box(es))	Cab signal	6		ain stop	9	Rad	io	12	Train	orders					
20. SPEED (recorded speed	d, if available) Est. MPH Recorded	21. TRAII	NUMBER					ABLE DIRECTIO	ON 2. South	n 3. East	4. \	Nest			CODE
	· · · · · · · · · · · · · · · · · · ·					EQUIP	MENT	· · · · · · · · · · · · · · · · · · ·							
23. TRAILING TONS (gro po	ss tonnage, excluding wer units)	1. Fi	reight trair	1	IST (single en 3. Mixeo	train	5. Single car		d/switch	ing	IN I	TEM 24 U	JIPMENT NATTENI	IDENTIFI DED?	ED CODE
26. TRACK NUMBER OR	NAME		2. Passenger train 4. Work train 6			6. Cut of cars 8. Light loco(s) 28. ANNUAL TRACK DENSITY (gross tons in millions)			1. Yes 2. No s/ 29. TYPE OF TRACK COD				CODE		
											` 1	. Main	;	3. Siding 4. Industr	
30. PRINCIPI	E CAR/UNIT	30a.	30a. Initial and Number			30ь.	Position i	in Train		30c.		Loaded (y		·	
(1) First Involved (derailed, str.	l ack, striking, etc.)														
(2) Causing (mec	hanical failures)														
31. LOCOMOTIV	'E UNITS (no. of)	a. Head End	1	Train c, Remote	Rear d. Manual		32.	CARS (n	no. of)		Lo: a. Freight	b. Pass.	Er c. Freight	npty d. Pass.	e. Cabocee
(1) Total in Train	i						(1)	Total in Equi	ipment (Consist					i
(2) Total Derailed	1						(2)	Total Derailed	1						
		PF	ROPERT	Y DAMA	GE (estima	ted cost		labor, to rep			<u> </u>	<u>.</u>			· · · · · · · · · · · · · · · · · · ·
33. EQUIPMENT DAMAG	E ported for this equipmen	t consist only	·)	\$			34. TRACK, SIGNAL, WAY AND STRUCTURES DAMAGE (to be reported by railroad in item 3 only)								
				ACCIDE	NT/INCIE	ENT C	AUSE COD						J.	<u>-</u>	
35. PRIMARY CAUSE	CODE	36. CON	TRIBUTIN		COD		37.	de available,							
							explain				··· · · · · · · · · · · · · · · · · ·	1211			
38. NUMBER OF PERSON	IS INJURED		130	FSTIMATI	ED TOTAL D	CASUA				40. NUMBER OF	EEATALIT	E P			
				. comman	ID TOTAL D	A 10 DIO	COTE T				FRIALIII	E3			
		W (no. of)								HOURS	ON DUT	Υ			
41. ENGINEERS	42. FIREMEN	43. COND	UCTORS	44. E	BRAKEMEN		45. ENGINE	ER				NDUCTO	R		
AT TURE MAYOR CO.	1						Hrs:		Mins:		l H	rs:		Mins:	
47. TYPED NAME AND T	IILE						48. SIGNAT	URE					[4	9. DATE	
50. NARRATIVE DESCR	PTION — Describe the cause	, nature and cit	cumstances	of accident/i	ncident		L			·			L.		
12	, at 1.5s.														

RAIL-HIGHWAY GRADE CROSSING ACCIDENT/INCIDENT REPORT

FORM APPROVED OMB NO. 04R4033

						
1. NAME OF REPORTING RAILROAD	Amtrak	1a. Alphabetic Code		1b. Railroad Accident/Incident No.		
2 NAME OF OTHER PALL POAR INVOLVED IN TO AN AGO STATISTICS	Autotrain					
2. NAME OF OTHER RAILROAD INVOLVED IN TRAIN ACCIDENT/INC	CIDENT	2a. Alphbetic Còde		2b. Railroad Accident/Incident No.		
3. NAME OF RAILROAD RESPONSIBLE FOR TRACK MAINTENANCE	single entry)	3a. Alphabetic Code	3a. Alphabetic Code 3b. Railroad Accident/Inc			
4. U. S. DOT-AAR GRADE CROSSING IDENTIFICATION NUMBER		5. DATE OF ACCIDENT/INC	CIDENT	6. TIME OF ACCIDENT/INCIDENT		
			lay year	am	pm [
		LOCATION	L L	<u> </u>	<u> </u>	
7. NEAREST RAILROAD STATION		8. COUNTY		9. STATE (two letter code)	CODE	
10. CITY (if in a city)		11. HIGHWAY NAME OR N	UMBER (if private crossing, so	state)		
	ACCIDENT/INCIDE	ENT SITUATION				
HIGHWAY USER INVOLV			RAILROAD EQUIP	MENT INVOLVED		
12. TYPE 3. Truck-Trailer 6. Motorcycle 1. Auto 4. Bus 7. Pedestrian	1 °	CODE 16. EQUIPMENT	3. Train (standing) 6.	Light loco(s) (moving)	CODE	
1. Auto 4. Bus 7. Pedestrian 2. Truck 5. School Bus 8. Other (specify)		Train (units pulling Train (units pushing)	t) 4. Car(s) (moving) 7. g) 5. Car(s) (standing) 8.	Light loco(s) (standing) Other (specify)		
13. SPEED (estimated mph at impact) 14. DIRECTIO 1. North		CODE 17. POSITION OF CAR/UNI	T IN TRAIN		CODE	
2. South	4. West					
Stalled on 2. Stopped on crossing crossing	3. Moving over crossing	II .	Train struck highway user	Train struck by highway user	CODE	
19. Was the highway user and/or rail equipment involved in the im	pact transporting hazardous m	aterials? 1. Highway user	2. Rail equipment	3. Both 4. Neither	CODE	
	EN'	VIRONMENT				
20. TEMPERATURE (specify, if minus)	21. VISIBILITY (single entry)		CODE 22. WEATHER (sin	· · · · · · · · · · · · · · · · · · ·	CODE	
°F	1. Dawn 2. Day	3. Dusk 4. Dark	1. Clear 2. Cloud			
	TRAI	N AND TRACK	****			
23. TYPE OF TRAIN 1. Freight 3. Mixed	5. Yard/Switchin	og I	CODE 24. TRACK TYPE I	USED BY TRAIN INVOLVED 3. Siding	CODE	
2. Passenger 4. Work	6. Light Locomo	tive(s)	2. Yard			
25. TRACK NUMBER OR NAME	26. FRA TRACK CLASSIFICA	ATION	27. NUMBER OF L	OCOMOTIVE UNITS		
28. NUMBER OF CARS	29. TRAIN SPEED (recorded sp	need if available	30. TIME TABLE D	MRECTION	CODE	
	, coordinate of	Est	1. North 3. East MPH Recorded 2. South 4. West			
	CROSS	SING WARNING				
31. TYPE 1 Gates 5	Hwy. Traffic Signals 9	Watchman	32. SIGNALED CR	OSSING WARNING		
(place X in 2 Cantilever FLS 6	Audible 10	Flagged by crew Was the signaled crossing warning				
appropriate box(es)) Standard FLS 7	Crossbucks 11	Other (specify)	identified in it	em 31 operating? s 2. No	CODE	
4 Wig Wags 8	Stop Signs 12	None		.s 2, NO		
33. LOCATION OF WARNING CODE 2. Side of vehicle approach	34. CROSSING WARNING INT NECTED WITH HIGHWAY		CODE 35. CROSSING ILL LIGHTS OR SPI	UMINATED BY STREET	CODE	
Both sides Opposite side of vehicle approach	1. Yes 2.		1. Yes	2. No 3. Unknown	Ī	
	МОТО	ORIST ACTION			l, . ,,	
36. MOTORIST PASSED STANDING HIGHWAY VEHICLE	C	ODE 37. MOTORIST DROVE BEH AND STRUCK OR WAS S	IND OR IN FRONT OF TRA		CODE	
1. Yes 2. No 3. Unknown		1. Yes	s 2. No 3.	Unknown		
38. MOTORIST 1. Drove around or thru the gate 2. Stopped and ther	proceeded 3. Did no	ot stop 4. Other (speci	6.1	E Helenous	CODE	
39. VIEW OF TRACK OBSCURED BY (primary obstruction)		ot stop 4. Other /speci	<i>1191</i>	5. Unknown		
Permanent structure Standing railroad equipment	- · · · · · · · · · · · · · · · · · · ·	getation 7. Other (sp ghway vehicles 8. Not obsti	** /		CODE	
		OPERTY DAMAGE/CASUA				
40. HIGHWAY VEHICLE PROPERTY DAMAGE (est. dollar damage)	41. DRIVER WAS		CODE 42. WAS DRIVER II	N THE VEHICLE?	CODE	
	1. Killed 2.	Injured 3. Uninjured		1. Yes 2. No		
43. TOTAL NUMBER OF OCCUPANTS KILLED	44. TOTAL NUMBER OF OCC	UPANTS INJURED	45. TOTAL NUMBE	R OF OCCUPANTS (include driver)		
	<u></u>					
46.	ORT BEING EU EDS	· · ·			CODE	
IS A RAIL EQUIPMENT ACCIDENT/INCIDENT REP		Yes 2. No				
47. TYPED NAME AND TITLE	48. SIGNATURE		49. DATE			

n FRA F 6180.71 (8-84)

U.S. DOT - AAR CROSSING INVENTORY FORM

. IIII I I I I I I I I I I I I I I I I	ASON FOR UPDATE: CHANGES IN EXISTING CROSSING DATA	D. EFFECTIVE DATE
	NEW CROSSING CLOSED CROSSING	لہا لہا
art I Location and Classification of All Crossings		M B Y
		Railroad Subdivision or District
	. County 6. County M	lap. Ref. No. DO NOT WRITE IN THIS SPACE
		State County
7. City	8. Nearest City 9. Highway	Type and No City Nearest City
10. Street or Road Name	11. RR I. D. No.	
12. Nearest RR Timetable Station 1:	3. Branch or Line Name 14. Railroad Mi	RR Code Timetable Station
15. Pedestrian Crossing □ 1. at grade 16. Private Vehicle Crossing A. □ 1. Farm □ 2. Resident		17. Public Vehicle Crossing
☐ 1. at grade A. ☐ 1. Farm ☐ 2. Resident☐ 2. RR under B. ☐ 5. at grade C. ☐ 8. sig		☐ 1. at grade
El 2 DD cups	nals-specify	1 1
☐ 7. RR over ☐ 0. nor	· · · · · · · · · · · · · · · · · · ·	······································
	RM ONLY FOR PUBLIC VEHICLE CRO	SSINGS AT GRADE
rt II Detailed Information for Public Vehicular and IA. Typical Number of Daily Train Movements	2. Speed of Train at	
Daylight (6 AM to 6 PM) Night (6 PM to 6 AM)	Than One Movement table speed	B. Typical Speed Range Over Crossing
thru trains switching thru trains switching	Per Day D5	from to mph
]	2 3
3. Type and Number of Tracks	1	
main other of the specify		
4. Does Another RR Operate a Separate Track at Crossin ☐ Yes 1☐ No Specify: RR ☐ ☐ ☐ ☐ ☐ ☐ ☐	g? !!!!!!	
5. Does Another RR Operate Over Your Track at Crossin	g?	
☐ Yes 1☐No Specify: RR	111112	
6. Type of Warning Device at Crossing A. Signs		
Crossbucks Standard Highwa	Other Stop Signs Other Signs: Specify	,
reflectorized non-reflectorized Stop Sign	05 Number	1 06
Number Number Number		
B. Train Activated Devices		
Gates Cantilevered Flashing Lights red & white other over not over	Mast Mounted Other Flashing Lights Flashing	Highway Traffic Wigwags Bells
reflectorized colored traffic lane traffic lane	Lights Specify	Signals
Number Number Number Number	Number Number	Number Number Number
C. Specify Special Warning Device not Train Activated		L_L_ 19
D. No Signs or Signals ☐ 20 7. Is Commercial Power Available? ☐ Yes ☐ No	B. Does Crossing Signal Provide Speed Selection fo	or Trains?
9. Method of Signalling for Train Operation: Is Track Eq		TIONS: LIFE LING LINIA
rt III Physical Data	5. Is Highway Paved Yes No	9. Does Track Run Down A Street?
1. Type of Development	6. Pavement Markings	Yes No
☐ 3. Comm. ☐ 4. Ind. ☐ 5. Inst. 2. Smallest Crossing Angle	☐ Stoplines ☐ RR Xing Sym. ☐ None 7. Are RR Advance Warning Signs Present?	10. Nearby Intersecting Highway? ☐ Yes ☐ No
□ 0°-29° □ 30°-59° □ 60°-90°	☐ Yes ☐ No	
3. Number of Traffic Lanes Crossing Railroad	8. Crossing 1. Sec. Timber 2. Full Wd. F Surface 15. Concrete Page 15. Rubber	
4. Are Truck Pullout Lanes Present? Yes No	Surrace 5. Concrete Pave. 6. Rubber 9. Unconsolidated 0. Other Spe	7. Metal Sections 8. Other Metal cify
t IV Highway Department Information 1. Highwa	y System	
2. Is Crossing on State Highway System?	4. Estimate AADT	I. D. Number
3. Functional Classification of Road over Crossing	5. Estimate Percent Trucks	

B-7

•			

• .